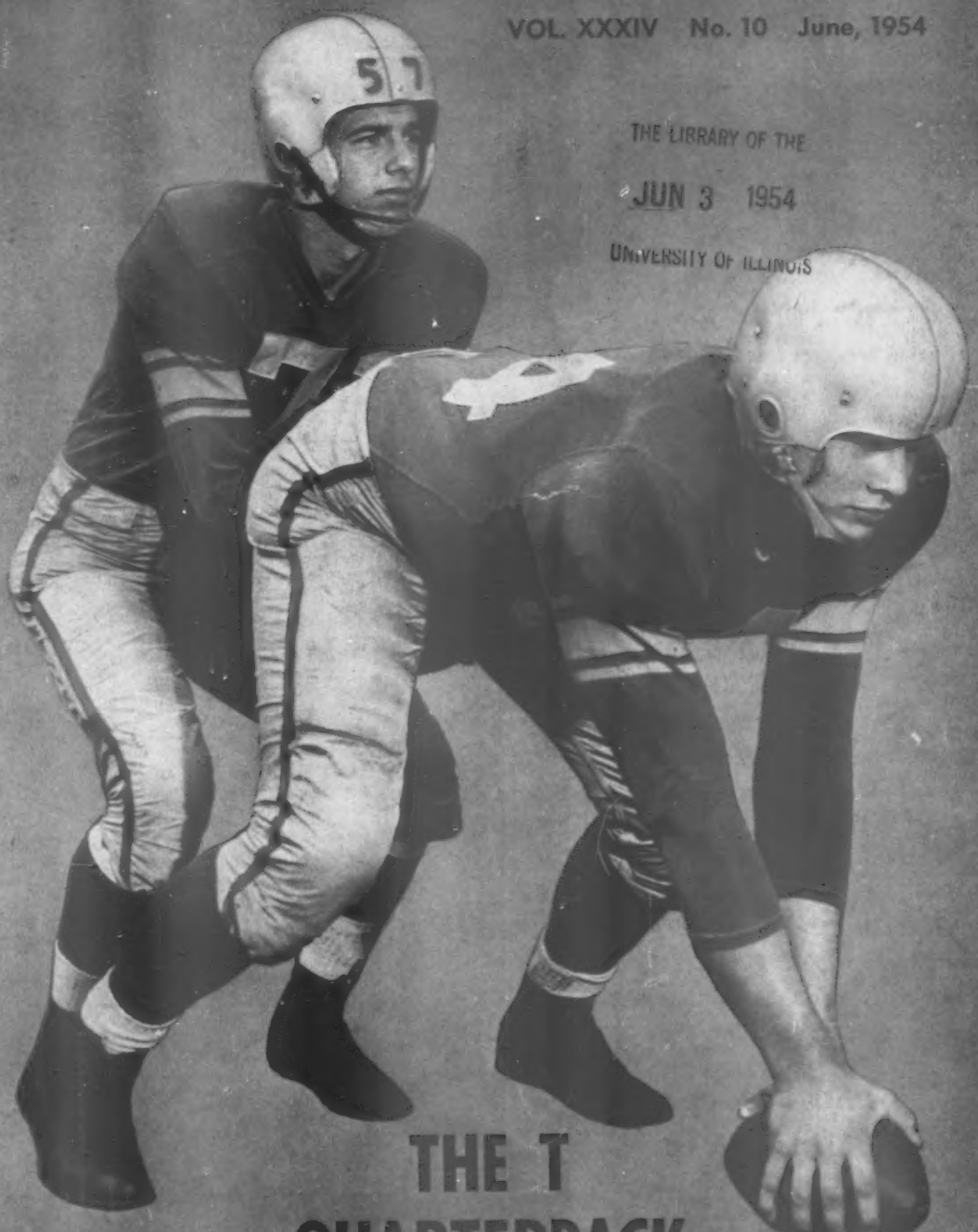
ATHLETIC JOURNAL

VOL. XXXIV No. 10 June, 1954

THE LIBRARY OF THE
JUN 3 1954
UNIVERSITY OF ILLINOIS

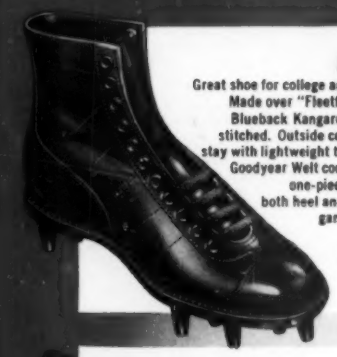


THE T QUARTERBACK

Greatest Of All Football Shoes!

Fleetfoot

SHOES BY Rawlings



MODEL X4F

Great shoe for college and high school players. Made over "Fleetfoot" lasts. Top quality Blueback Kangaroo uppers, 100% Nylon stitched. Outside counter pocket and back stay with lightweight treated leather counter. Goodyear Welt construction. Oak-tanned one-piece outsole. Steel plates both heel and toe. New lightweight game cleat. Sizes 6 to 13. D and E widths.

SCHOOL PRICE— $16.95 Pair

MODEL XF

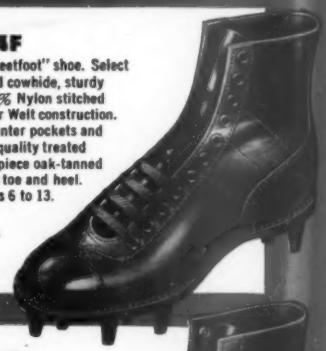
Highest quality lightweight game shoe. Complete uppers of select Yellowback Kangaroo, especially tanned for athletic footwear, 100% Nylon stitched. Made over "Fleetfoot" lasts. Finest quality lightweight treated leather counters in outside counter pocket. Oak-tanned one-piece outsole, steel plates both heel and toe. Full Goodyear Welt construction. New lightweight game cleats, locked on. Sizes 6 to 13. D and E widths.

SCHOOL PRICE—$21.00 Pair

MODEL X8F

Oxford, same as Model X4F except with low-cut upper.

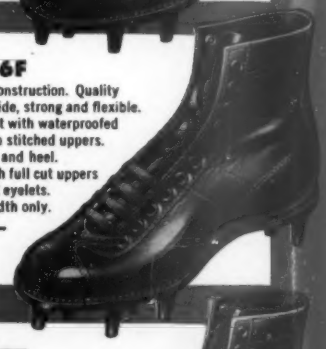
SCHOOL PRICE— $15.95 Pair



MODEL X24F

A fine all-purpose "Fleetfoot" shoe. Select quality athletic tanned cowhide, sturdy but very flexible. 100% Nylon stitched uppers. Full Goodyear Welt construction. One-piece outside counter pockets and back stay with finest quality treated leather counter. One-piece oak-tanned outsoles. Steel plates toe and heel. Hex-base cleats. Sizes 6 to 13. D and E widths.

SCHOOL PRICE— $13.95 Pair



MODEL X26F

Full Goodyear Welt construction. Quality athletic tanned cowhide, strong and flexible. Inside counter pocket with waterproofed counter. 100% Nylon stitched uppers. Steel plates both toe and heel. Hex-base cleats. High full cut uppers with eleven grommet eyelets. Sizes 6 to 13, one width only.

SCHOOL PRICE— $10.45 Pair

MODEL X28F

Boys model. Full Goodyear Welt construction. Hard toe construction. 100% Nylon stitched uppers. Other specifications same as X26F. Sizes 2 to 5½ inclusive.

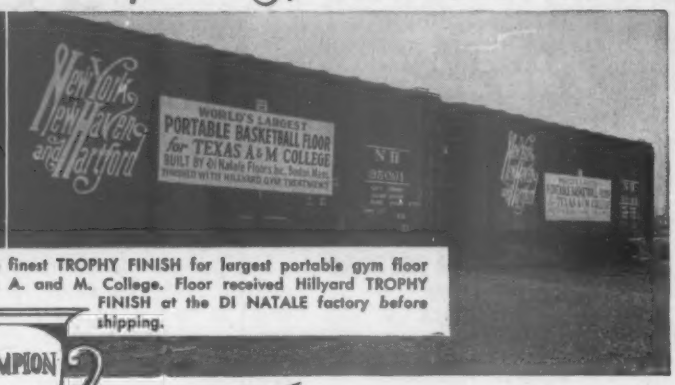
SCHOOL PRICE— $8.95 Pair

In all the world of sports you'll find no football shoes like "Fleetfoot"! These are shoes completely new—shoes made of the finest top grain leathers, supple and soft but tough and durable . . . shoes with sturdy but fully flexible oak leather soles . . . shoes with 100% DuPont Nylon stitched uppers . . . shoes that snugly cradle every curve of the foot for easy action-free comfort . . . shoes that hug the ankle for firm support . . . shoes of full Goodyear Welt construction . . . shoes designed and skillfully made over exclusive Rawlings "Fleetfoot" lasts to retain their shape and good looks, to wear far longer than could be expected. Nothing can match them for comfort, for wear, for quality, no matter what the price—*They're Rawlings—They're "Fleetfoot"—They're . . . "The Finest In The Field!"*

RAWLINGS SPORTING GOODS COMPANY · ST. LOUIS AND LOS ANGELES

the new look in champion gym finishes

Chosen for THE LARGEST PORTABLE FLOOR ever Built!



Only the finest TROPHY FINISH for largest portable gym floor at Texas A. and M. College. Floor received Hillyard TROPHY FINISH at the DI NATALE factory *before* shipping.

HILLYARD CHAMPION TROPHY GYM FINISH

OUTLASTS OUTPERFORMS

The Tiffany of all finishes. For those who demand the best. An amazingly smoother, lighter finish with built-in controlled light reflectivity. Doubles the life of the playing surface. Its slip-resistant, non-rubber burn finish saves maintenance costs. See TROPHY features that make it the all-time TOPS in gym finishes.

• A LABORATORY ACHIEVEMENT

TROPHY Gym Finish is a test-tube product, employing man-made synthetic type solvents and solids far superior to the phenolic resin and Tung Oil gym finishes in popular use today. It is the step-ahead treatment in a long line of specialized finishes developed through nearly 50 years of research at the Hillyard laboratories.

• LARGE MOLECULES

Because the molecules of TROPHY finish are so much larger than the old type finishes, a heavier film is produced with less solids. Therefore your TROPHY finish can be spread thinner, actually twice as far, for double the coverage.

• ABRASION TEST PROVES LONGER LIFE

TROPHY'S abrasion index (ability to stand use and wear) hits a new high of 854 as compared to 355 held by the toughest finish known to date. Proof that TROPHY gives more than twice as many years' service as the best finish on the market.

• LIGHTEST, NON-DARKENING FINISH CONTROLS LIGHT REFLECTIVITY

Its silking appearance of a mat finish, "breaks up" light rays, reducing glare, providing better diffusion, and maximum light for action play and crowd viewing.

• SLIP RESISTANT FOR FAST ACTION CHAMPIONSHIP PLAY

TROPHY'S smoother finish is slip-resistant with a high co-efficient of friction that assures safe footing, reduces muscle strain for players.

• INCREASES COVERAGE, CUTS FINISHING COSTS

With TROPHY treatment you use only 1 coat of *finish*. Because of this specification, and the increased coverage type solvent, TROPHY treatment costs you LESS in material costs and labor time.

Hillyard Maintaineers are "on your staff, not your payroll" for free floor advice and help. There's one near you.

HILLYARD CHEMICAL CO., St. Joseph, Mo.

Passaic, N. J. San Jose, Calif.

Branches in Principal Cities

MAIL COUPON FOR TROPHY FACTS

Hillyard Chemical Co.,
St. Joseph, Mo.

____Please have the Hillyard Maintaineer call, advise how I can give my gym the NEW TROPHY LOOK.

____Please send my free copy of the new revised gym layout and lining file folder.

Name_____Title_____

Institution_____

Address_____

City_____State_____

Published by
THE ATHLETIC JOURNAL PUBLISHING CO.
6858 Glenwood Avenue
Chicago 26, Illinois
MAJOR JOHN L. GRIFFITH
Founder
JOHN L. GRIFFITH
Publisher and Editor
M. M. ARNS
Associate Editor
Bevan Jones
Art Editor

INFORMATION EDITORS
1953 - 1954

FOOTBALL
Charles "Bud" Wilkinson, University of Oklahoma
Jeff West, Cairo, Georgia, High School

SIX-MAN FOOTBALL
M. L. Rafferty, Jr., Big Bear Lake, Cal. High School

BASKETBALL
Howard Hobson, Yale University
John A. Grayson, Springfield, Missouri High School

BASEBALL
Dan Jessee, Trinity College
James Smilgoff, Taft High School, Chicago

TRACK
Clyde Littlefield, University of Texas

SWIMMING
Richard O. Papenguth, Purdue University

WRESTLING
Art Griffith, Oklahoma A. & M. College

BOXING
John J. Walsh, University of Wisconsin

GOLF
Les Bolstad, University of Minnesota

HOCKEY
Westcott E. S. Moulton, Brown University

SOCCER
George D. Ritchie, Wethersfield, Connecticut High School

GYMNASTICS
Newton G. Loken, University of Michigan

PHYSICAL EDUCATION
William L. Hughes, Temple University

FENCING
Irving De Koff, Columbia University

TENNIS
William Murphy, University of Michigan

TRAINING
Fitz Lutz, University of North Carolina

Eastern Advertising Representative:
Charles Thorp, 370 Lexington Avenue, New York City

Published monthly except July and August by the Athletic Journal Publishing Company, 6858 Glenwood Avenue, Chicago, Illinois. Member Audit Bureau of Circulations. Request for change of address must reach us thirty days before the date of issue with which it is to take effect. Duplicate copies cannot be sent to replace those undelivered through failure to send advance notice.

Subscription Prices: $2.00 per year; $3.00 for two years; $3.75 for three years; $1.20 for six months; $1.00 for five months; Canada $2.50 per year; foreign $2.75 per year. Single copies 25 cents for current volumes; 35 cents per copy for back volumes. Copyright 1954. The Athletic Journal Publishing Company. Entered as second-class matter, August 14, 1925 at the post office at Chicago, Illinois under the Act of March 3, 1879; additional entry at Rochelle, Illinois.

The ATHLETIC JOURNAL

Nation-Wide Amateur Athletics

Volume XXXIV **Number 10**

June, 1954

2 FOOTBALL ARTICLES

THE T QUARTERBACK 4
Forrest W. England
PUNTERS ARE MADE 15
John White

1 SOCCER ARTICLE

SOCCER AN INTERCOLLEGIATE SPORT 12
Bruce L. Bennett

1 ARTICLE ON EQUIPMENT

SELECTING THE ATHLETE'S UNIFORM 14
Tris M. Carta

1 ARTICLE ON CROSS-COUNTRY

CROSS-COUNTRY CAN BE A SPECTATOR SPORT 19
Carl F. Fischer

1 SIX-MAN FOOTBALL ARTICLE

IS YOUR TEAM'S DEFENSIVE SLIP SHOWING? 24
Andrew W. Grieve

1 ARTICLE ON TURF

TURF GRASS FOR THE SOUTHWEST 26
Bob Dunning

5 FEATURES

FROM HERE AND THERE 3
EDITORIAL 16
COACHING SCHOOL DIRECTORY 20
INDEX VOLUME THIRTY-FOUR 40
BUYERS GUIDE 43

FRONT COVER ILLUSTRATION

When we decided to devote our feature article this month to the T formation quarterback we called on "Frosty" England to handle it for us. He did an admirable job as witness pages 4 to 11. True to our practice of tying in the front cover feature with our lead article, we present quarterback, Ed Kaser, and center, George Machukas, of the University of Toledo.

from here and there

WHERE is the best college basketball to be found? According to Dick Dunkel, who rates them for the United States Rubber Company, the answer is Pennsylvania. For the past year Pennsylvania had 9 of the 100 best teams in the country. New York, Ohio, and California followed with 8 each, and Texas had 6. . . Averaging the rank of the schools within the major conferences shows the Big Ten to be way out in front. The average rank for the Big Ten is 28.6 which means the 10 schools averaged out as between the 28th and 29th best teams in the country. The average rank for the other conferences is as follows: (2) Missouri Valley, 57.8; (3) Pacific Coast, 60.6; (4) Big Seven, 69.0; (5) Southwest, 95.0; (6) Atlantic Coast, 127.3; (7) Skyline, 132,6; (8) Mid-American, 135.0; (9) Southeastern, 137.3; (10) Ivy League, 145.0; (11) Border, 252.4; and (12) Southern, 278.8. Furthermore, the Big Ten was the only conference to have all its members rated in the first 100. The Missouri Valley, Big Seven, and Pacific Coast Conferences each had one member ranked higher than one hundredth. Fifteen of the top 25 teams hold membership in the above conferences and again the Big Ten leads with 5 of its teams being selected among the first 25. . . "Frosty" England, whose masterful article appears in this issue, points out that an experienced coach is one who keeps the packing crates and barrels his furniture and dishes were moved in. . . Carl Schuette, who coaches the freshmen gridders at Marquette, has commuted daily for three years between his home in Sheboygan, Wisconsin and Milwaukee where Marquette is located. The distance between the two cities is 55 miles and Schuette estimates he has logged approximately 64,000 miles going and coming from work.

* * *

THE Ohio High School Baseball Coaches Association has gone on record as recommending the use of a protective headgear for the batter in all official games . . . James Loveless, who leaves Grove City (Pa.) College to replace "Gaumy" Neal upon his retirement this month as athletic director at DePauw, holds a unique distinction. He spent six years in high school coaching and in four of those years, while at Peru, Ind., he guided his teams to four straight Indiana sectional championships. The other two years were spent at Saginaw, Michigan where he coached football and track . . . Several corrections are needed on our report of the state basketball tournaments. We reported that Bill Linton's Wewahitchka team was dropped from champion to runner-up. Not only did Wewahitchka repeat as Class D champion for the third straight year but they possess one of the truly fine records in the state. Over the past eight seasons they have won 190 out of 219 games played . . . Secondly, we failed to list the Class B results in Oregon and wish to point out that Mel Larkin coached Harrisburg to the state championship and in the finals beat Ione. This was Ione's first defeat after 26 straight wins . . . We also overlooked the fact that Robert Rae coached the Belfry "Bats" to their third straight Class C championship in Montana. Incidentally, Rae's teams won 136 games out of 145 played during the past five years. Rae moves to Butte High School next fall. We are sorry about these omissions and errors . . . "Pop" McKale, University of Arizona athletic director and until 1949 the baseball coach, was recently elected to the Hall of Fame. McKale started coaching at Tucson High School in 1911 when Arizona was still a territory. In those days travel was a distinct hardship, with the result that Tucson High School and the University of Arizona competed frequently. Three years later McKale's impressive record of wins over university teams led to his appointment as athletic director at the University of Arizona. His baseball coaching record shows 318 victories against 124 losses . . . The best wishes from our staff to each one of our readers for a pleasant and restful summer vacation. We'll see you on Labor Day with what promises to be the finest September issue in our 35 years.

The sizes go by the color in the toe

Sock Size	Thread Color
9	Black
10	Green
11	Red
12	Blue
13	Orange

Whatever you want—wear Wigwams. *All materials—all weights—all prices.*

ALL WOOL

PART WOOL (Also available with colored tops)

CUSHION FOOT

ALL NYLON

Soft, springy, absorbent Wigwams, nylon reinforced, provide the all-important foot comfort needed for top performance. And—Wigwams are STA-SIZED* to retain that comfort . . . no binding, bunching or chafing. Order Wigwams . . . at leading dealers everywhere.

* *Won't shrink below the knitted size.*

Hand Knit Hosiery Co.
Sheboygan, Wisconsin

The T Quarterback

By FORREST W. ENGLAND

Head Football Coach, University of Toledo

BEGINNING with the 1942 season and continuing through the 1948 season, our entire philosophy of T formation football centered around the use of only the commonly referred to split T type of offense. We would call the T formation which we have used for the last six seasons a hybrid T offense. Although there are several prominent coaches who have used only the split T offense to attain success, most of the users of the split T have found it necessary, sooner or later, to make changes involving flankers, men-in-motion, trap plays, draw plays, etc., thus removing them from the original concept of the split T offense. If an individual is to spend his life coaching football we think he should be fair to his imagination and intuition, and utilize other beautiful and highly effective series of plays. By using some of these other series from T formation patterns a coach will be able to achieve a variety of offensive maneuvers more readily than he will through the use of the split T. The term split T today represents a most confusing terminology because practically all offenses rely heavily upon extensive splits in line spacing.

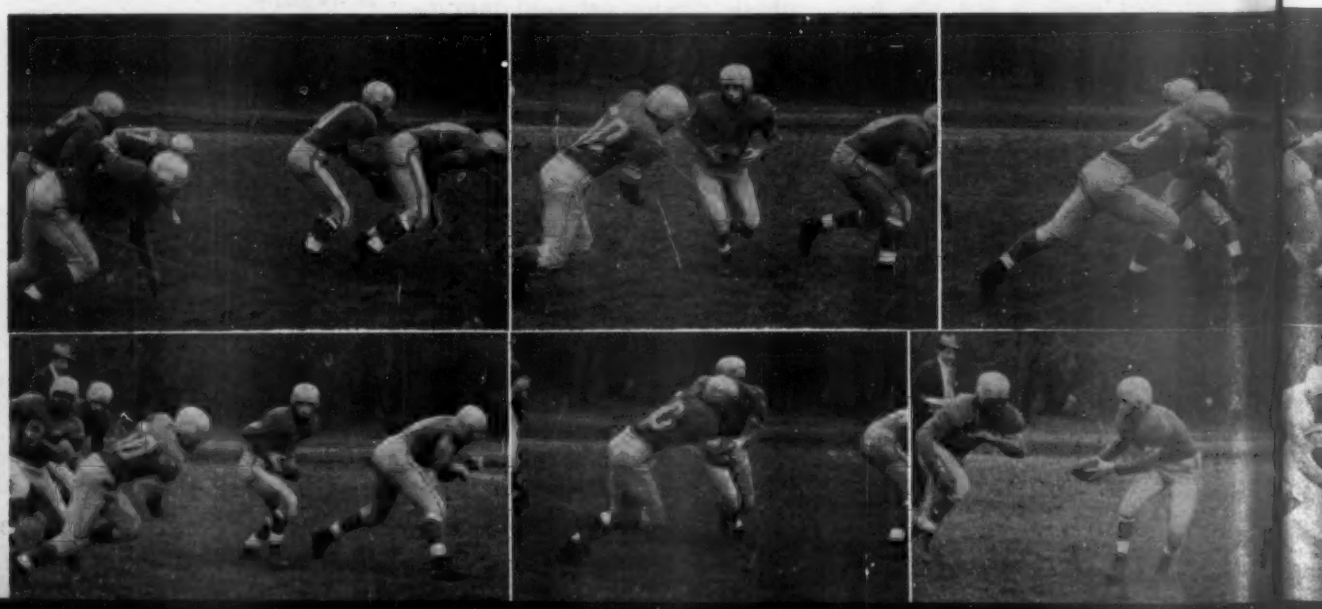
We use five series of T formation plays. The first series we have our boys learn is the most effective single series of plays that we have ever known. This is the *split T* series. Our second series is called the *left half trap* series. The third series is the *right half trap* series. Our fourth series is the *fullback trap* series. The fifth series is the *direct pass to the fullback* series. In the split T series we have approximately 12 plays. From each of the other four series we have 15 plays.

These series involve three basic styles of play for the quarterback. Any difference that exists today in T formation football involves basically the movements of the quarterback. It is true that line play fundamentals will vary somewhat if a team is to rely completely upon any one single style of quarterback movement. We are certain that our use of these five series places a much greater burden on the opposing team in planning and using its defensive maneuvers.

There has never been a good T formation team that did not have a better than average quarterback. We believe that a capable T formation quarterback can get pretty fair results with only average teammates. Never in the history of football offense has a single player had as many opportunities to move his team down the field as has the intelligent T formation quarterback of today. We feel that a T formation team can move about as well as the quarterback of that team can think. This statement strongly implies that after a T formation quarterback has mastered the mechanics of his position he must understand thoroughly the practical use of the vast offense at his disposal. It is in the realm of learning and application that much of the work in

Series B (Below)

Series C (Bottom)



coaching the T formation quarterback rests. He must come to understand thoroughly the philosophy of his coach and display it in the direction of the team at his command.

In our early years of teaching that vital phase of T formation football, deception, our boys were instructed to hide the ball. It was our feeling that deception placed maximum handicaps upon the defense. This philosophy is still used in the execution of many of our plays. We also use many plays today in which the thought is to show the ball. The thought behind this reasoning is as follows: The ball is the only thing in the game that will attract all of the defensive players.

All football players, whether they be good or poor, will come toward the football like mice come to cheese. If we can have our quarterback swing the ball out hard in one direction, threatening to hand off or pitch a lateral accompanied by extremely noticeable arm, head, and shoulder movements, we feel the defense will pull toward the ball, thus permitting themselves to be positioned for better blocking angles. If the quarterback attempts to hide the ball near his waist and thrusts out an empty arm and hand to make his fake, we feel there is no guarantee that a smart football player will go toward that empty hand.

The use of the determined swing

Series A

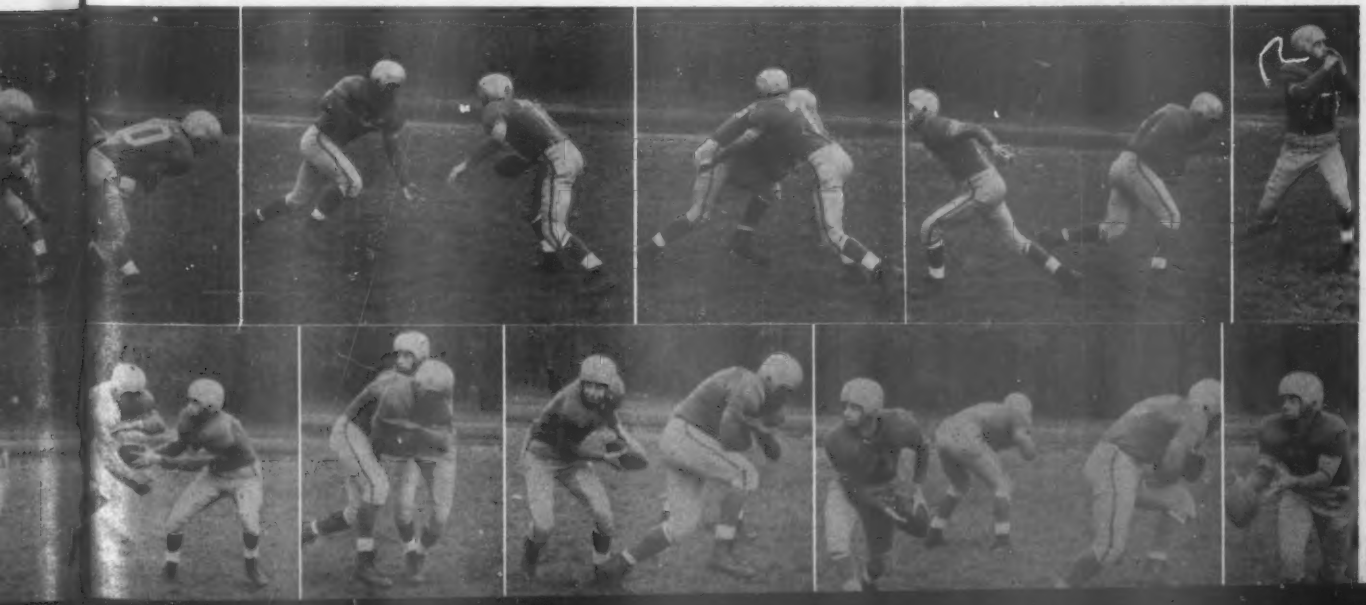
of the ball is incorporated into our halfback and fullback trap series in an attempt to let the whole defense see where the ball is and seems to be going. In our split T offense the ball is shown intentionally on some plays and we still seek to hide it on others. The end run option play (Series A) demonstrates the maneuver of showing the ball. In Series B we are demonstrating a common split T movement in which we seek to hide the ball all the way. In executing the fullback *belly play* we try to show the ball and then hide it. This maneuver is demonstrated in Series C.

"FROSTY" ENGLAND graduated from Illinois College where he played under Ray Eliot. Then he coached for seven years in Illinois high schools. He followed this with four years at University City, Missouri, High School. England coached at Arkansas State for a number of years before accepting the Toledo job this spring. "Frosty" is recognized as one of the outstanding T formation authorities and his book, "The T. Formation From A to Z," published by the School Aid Company is widely used in college courses.

Regarding footwork for the split T quarterback, it must get him up into the line of scrimmage. Then he moves down the line of scrimmage on what we call *East and West Street*. The philosophy of this offense is that it is a mass movement of speed forward. It seeks to make yardage immediately with the snap. Here the quarterback is primarily a running threat. He may become a most effective passing threat by developing a strong running game and by preceding his passes with identically the same maneuver as is used in a strong running game. Series D shows the fake of a strong running play before the quarterback fades back for an effective pass.

In order that the quarterback will be able to work up into the line he must be taught to move his near foot up and outward about 10 inches before the ball strikes his hands. His next step is a cross-over step with the other foot. Series E shows this footwork.

It is far more difficult to teach a young quarterback effective footwork than it is to teach him the proper use of his hands. The quarterback's first step should be hard, fast, and determined. These initial foot movements must become a habit. Diagram 1 shows a drill we like to use in teaching this initial split T foot move-



ment. In this drill a dummy is placed in a position which makes it necessary for the quarterback to use proper footwork lest he stumble or step on the dummy.

To execute the basic concept of the split T series the stance of the quarterback should find him with both feet even, knees slightly bent, head up and looking directly down the field, and his elbows fairly close to his waist. His feet should be spread to about shoulder width. Foot position for the quarterback is always determined by the basic objectives that the player sees. His hips should be bent only slightly. The physical make-up of the center will largely dictate the hip bend of the quarterback. His weight should be on the balls of his feet. The shoulders of the quarterback will be just above the rump of the center. At any rate the quarterback will be close to the center. By having his elbows bent and near his waist he is more relaxed and is given the opportunity to ride the center forward as the ball is being snapped. Comfort and relaxation are the prime objectives of the T formation quarterback's stance. Illus. F shows the stance of our quarterback.

The quarterback's shoulders should be level. There should be no lean, sway or dip. There should be no movement which would in any way indicate the movement of the ball.

The quarterback should place the heels of his hands together with all fingers flanged as far apart as possible. When placed in this position the hands form a V. If the heels of the quarterback's hands remain touching each other until the ball strikes the upper hand, the chances for fumbles are greatly diminished. If a quarterback is having great difficulty in keeping the heels of his hands touching until the thud of the ball comes, he may be instructed to hook

Series D

the thumb of his right hand just over the thumb of his left hand so that the tip of his right thumb brings pressure immediately back of the first joint of his left thumb. It is not necessary that the right hand be placed on top. We prefer that the quarterback's right hand be placed on top because it makes it unnecessary for the center to readjust the ball which would be necessary if a man placed his left hand on top. At any rate, the passing hand should be on top. If the center starts his snap with the laces of the ball up, it should arrive in the passing hand of the quarterback with a solid thud ready for immediate passing grip.

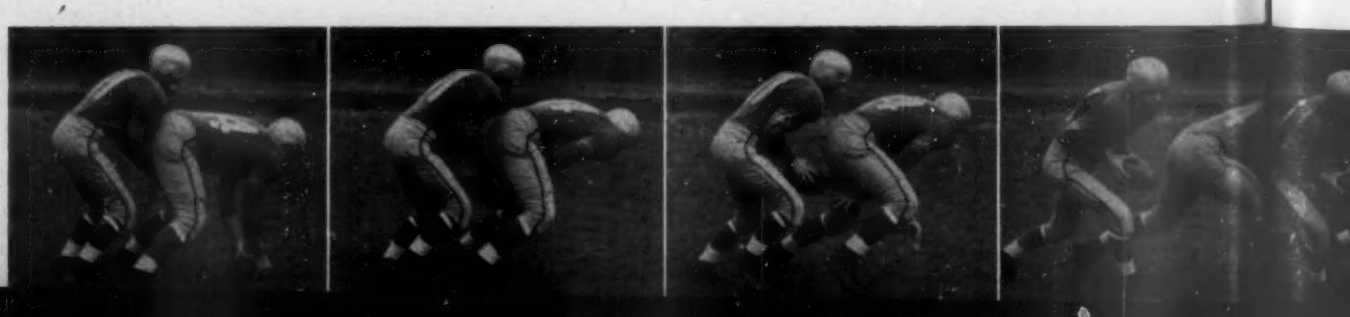
The quarterback's left hand is used only to trap a ball. He uses his left hand in a manner similar to the way an outfielder uses a glove to catch many fly balls in baseball. The ball should arrive in the hand of the quarterback at a 45° angle. This angle will result because the center uses only a natural turn of his wrist. The upper part of the forward half of the ball should strike the palm of the quarterback's upper hand. The harder the snap, the better the ball will stick. Usually the sound of the snap will tell the quality of the snap. The quarterback's upper arm should be extended under the center about to the wrist. The position of the quarterback's hands is shown in Series E and in Illustration F.

In early experiments with the proper exchange the center can facilitate matters by placing the hands of the quarterback where he wants them. Plenty of pressure must be placed against the center at all times by the top of the quarterback's upper hand. Actually the ball may be readily received by placing only the upper hand in position. The chief problems in a good exchange between the center and quarterback are usually due to one or all of the following reasons: 1. The quarterback takes the heels of his hands apart before the ball strikes his upper hand. 2. Failure of the quarterback to cause pressure and to ride the center forward with the snap. 3. Failure of the center to snap the ball hard on the anticipated count.

The center and the quarterback must work together constantly. In all drills or practice sessions the center should never be allowed to snap the ball without charging as he makes his snap. After thousands of snaps between the two players, this most important phase of T formation play should become automatic. We like to use the drill which is shown in Diagram 2 to give all quarterbacks a chance to work behind all centers so that all men at these positions may become acquainted with each other. After a dozen snaps have been completed by each pair they rotate to their right with the man on the extreme right taking the place of the man at the extreme left.

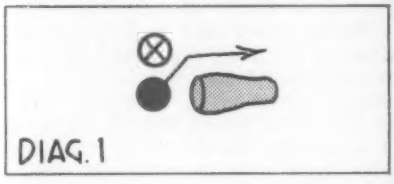
From the drill, shown in Diagram 2, we teach all quarterbacks to use the same cadence. Nothing can destroy T formation timing as quickly as poor cadence on the part of the quarterback in his counting or calls. We want our linemen to anticipate the count. We think it wise to work our No. 1 quarterback with our No. 1 line as much as possible. The line must know the quarterback's cadence thoroughly. Even when the line is at the seven-man sled or is practicing any drill, the No. 1 quarterback should be used behind it. If it is at all possible, proper use of the snap count can improve a team by leaps and bounds. The ball should strike the quarterback's hands on the charg-

Series E



ing signal. Every player should move just as the quarterback prepares to give the charging count — not as the count is heard. The quarterback's hands should be placed in a position to receive the ball just as soon as the center goes over the ball, thus permitting the use of fast-striking plays against a sluggish defense.

The quarterback has the responsibility of making a good hand-off or exchange of the ball. We ask that our quarterback place the ball in a position for the hand-off, using both of his hands. At the last moment, before the exchange, the hand on the side of the foot that is farthest from the receiver is taken away. Thus, if the quarterback's left foot is forward, the ball is placed in position to be taken with the receiver's left hand



under it. It should be held steady and always at the same plane with no up and down movement. We ask that the ball be held with the giving hand under it. The quarterback should handle that ball as gently as though he were handling an egg. We do not like to have the quarterback drive the ball into the abdominal area of the intended receiver. The speed at which the running back is traveling when he takes the ball will make for plenty of firmness and crispness in the exchange.

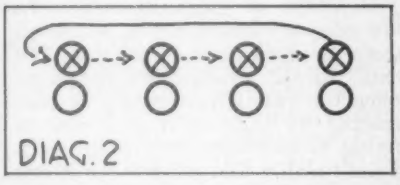
Too much emphasis cannot be placed upon the necessity of carrying out all fakes after the hand-off has been executed. A neat trick which may be used to increase the deception of a team's attack is for the quarterback to hand the ball off while his team is running dummy scrimmage or signal drills to a back who is supposed only to be faking for the ball on a given play. Handing off under these conditions will impress upon the players the necessity of coming close to the man with the ball and the need for acting as though they really have the ball. All of the backs soon see that they have a real part in increasing the deception of the play. In

Illustration F

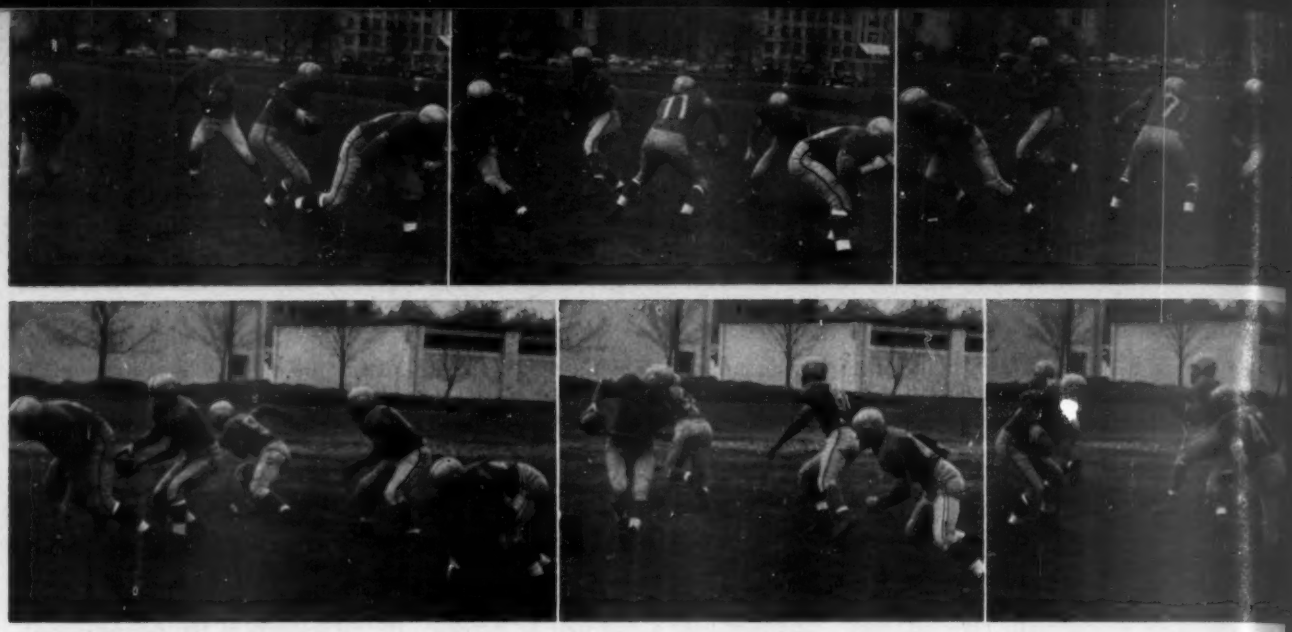
the split T all hand-offs for the quickies or dive plays should take place on the ground over which the offensive tackle is ordinarily stationed. From this spot the halfback may cut over his guard, over his tackle or even over his offensive end.

On the end run or option play the quarterback takes his steps and works down the line of scrimmage. His fake to the halfback is not as important as the fake the halfback should make to take the ball. We feel that if the defense is ignoring the threat of a hand-off to the halfback, there should be a play of this kind coming up very soon. The split T quarterback should have one main objective on this option play as he moves down the line of scrimmage and that is to be watching and studying constantly the movements of the defensive end.

If we asked our quarterback to make a fine fake to the diving halfback, his eyes would be taken off the defensive end. The halfback who is shooting into the line must really shoot fast and, if possible, he should be rather low in order not to interfere with the quarterback's vision of the defensive end. Our quarterback



always calls the end run and has the option of keeping the ball if the defensive end's tactics dictate his keeping it. The decision to lateral or keep the ball should come by the time the quarterback is over the ground our offensive end was standing on. The far-side halfback should keep a spacing of at least five yards between himself and the quarterback on this option play. This spacing forces a two-on-one situation which is common in basketball. If the defensive end boxes and comes across the line to *set*, the quarterback should fake a pitch-out and keep the ball. If the defensive end is playing a waiting game, the quarterback will be forced to use his judgment as to whether to keep or

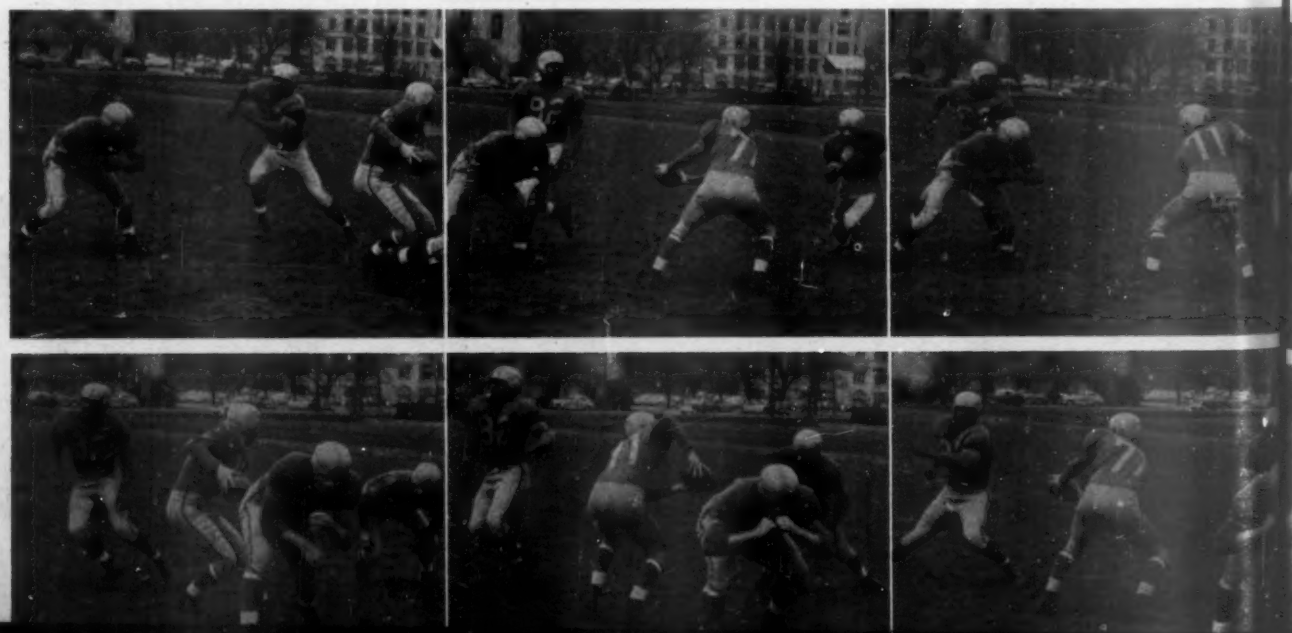


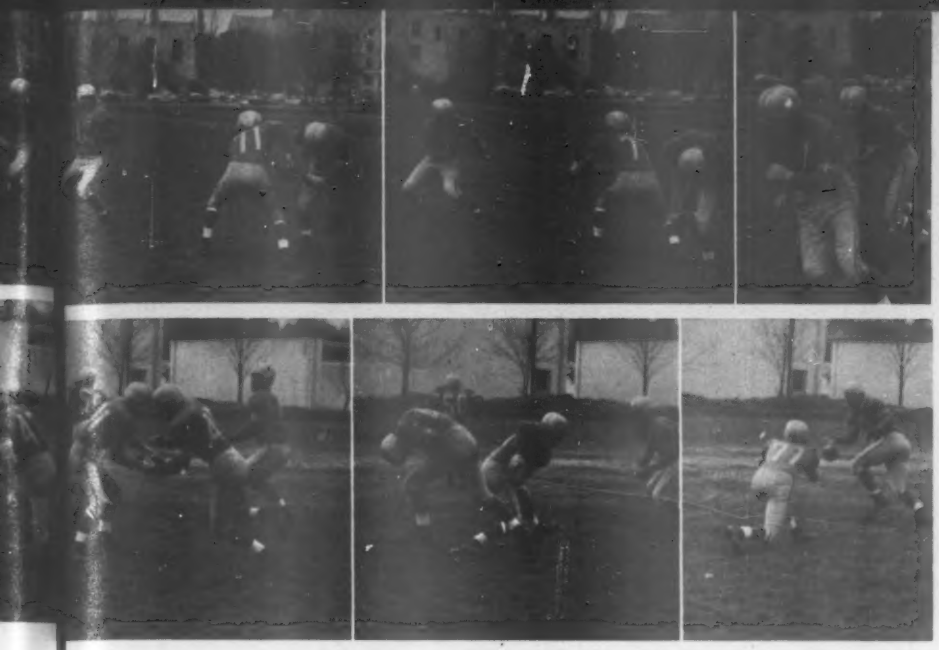
lateral the ball. Under this circumstance he will usually fake a lateral and keep the ball. At no time will he bow, dip or veer away from the line of scrimmage. Often he should almost stop for a second exactly where the offensive end was playing, fake the lateral, and then keep the ball.

Hundreds of judgment maneuvers are necessary before a boy is able to sense the movements of the defensive end. In all practice on judgment plays the quarterback should be confronted by a defensive end who is trying to fool him. The quarterback should realize that his best yards can be gained if he keeps the ball by cutting back sharply away from the flow of the play. A slick field will hamper movements of this kind.

It is important for the quarterback to realize that the most important thing in the game is the ball. We have a very strict rule about the use of the lateral and it is: *If you feel there is any chance of the lateral not going through safely, do not lateral the ball. When in doubt, keep the ball.* We do not care about a few lost yards. The risk of losing the ball to gain a few yards is ridiculous. We ask that all of our laterals be of the two-hand, underhand, dead ball type. We lateral the ball so much that we cannot afford to allow our boys to be reckless in the use of this great offensive weapon. A few lost yards to a smart T formation quarterback should be nothing more than a good omen as to what type of play will go a long way on his next call. We instruct our quarterback not to worry about losing a few yards. Above all, he is told never to lateral when he feels there is the slightest chance of losing the ball.

One of the most common errors made by the T formation quarterback is his failure to make adequate use of the quarterback sneak play. There should never be a moment when the defensive guards and tackles are not afraid of his using the sneak on them for precious yardage. We use the quarterback sneak as an automatic type of play to be called only at the line of scrimmage. It should be used on every occasion when the defense makes its use necessary. If it is handled in this manner, the quarterback sneak should be one of the best averaging gain plays in the offense. Certainly, it should not be left on the shelf for





Fake L. H. Trap

Top
Series G
Quarterback to 6 hole

Left
Series H
Fullback to 8 hole

Below
Series I
Right half to 6 hole

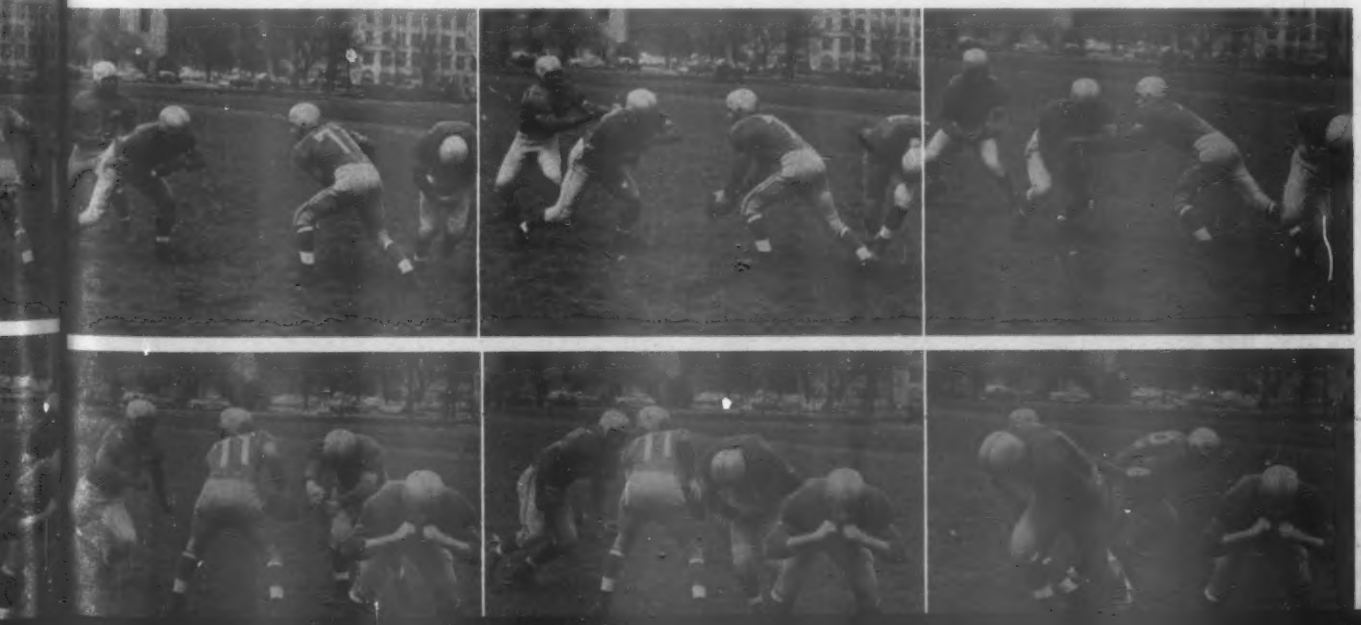
Bottom
Series J
Fullback counter

only one yard and one foot attempts. All quarterback sneaks follow one of the following four patterns: 1. A sneak behind a line that is using wedge blocking. 2. A delayed type of quarterback sneak after a fake to another back. 3. A sneak that has been preceded by the faking of a fast, short pass. 4. The use of the sneak as a type of mousetrap play.

One of the newest and most effective maneuvers in T formation football is the use of what we call the *three way fake maneuver.* By that term we mean we fake the ball to a given back, come back and fake it to a second back, and then finally give or lateral it to the original man to whom we faked the ball in the first place. This series may also find the quarterback faking to a given back, giving the ball to a second back, and then faking again to the original back. The series goes farther and makes use of plays where the quarterback fakes to a given back, fakes to a second back, and then gives or pitches to a third back. Another movement in the series is for the quarterback to fake to a given back, fake to a second back, fake to the original back, and then keep the ball himself or pass it after completing all three of the fakes. We know of no more deceptive series in modern football.

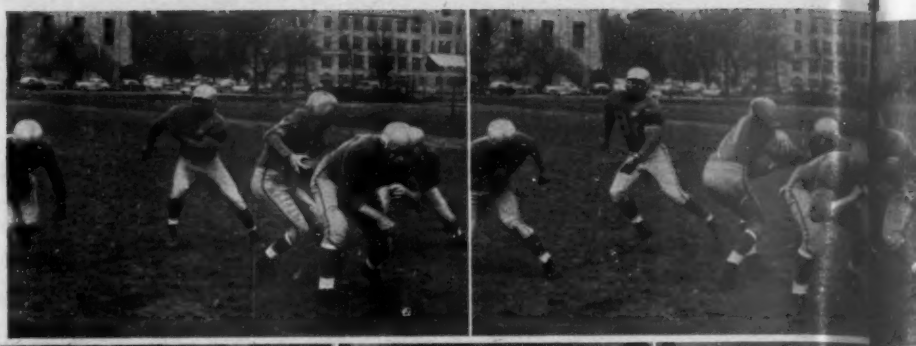
Beginning with the 1950 season we built this movement or philosophy into our offense. We feel it has greatly aided our teams in scoring 1248 points to lead the nation's colleges in scoring over these four seasons. We have built this theory into our offense and have 15 well-knit running plays aside from passes springing out of it. We run our left half trap play based on this theory. Then we fake the left half trap play and run 14 other plays which closely resemble the left half trap play to give us our left half trap series. A few of these plays are shown in Series G, H, I, J, and K.

The identical series when used to the left is called *the right half trap series.* The same quarterback movements and theory are retained in running *the fullback trap series.* In this series there are 14 plays developing off *the fullback trap play.* This basic play is shown in Series L. It is followed by a few other plays which are shown in Series M and N. The fullback trap series is also run to the left.



Series K

Three fakes and a pass



Out of each of these series there are several effective counter plays.

Throughout the left half trap series of plays the quarterback will normally have his pivot foot (his right foot) about six inches deeper than his left foot when taking his stance

Series M

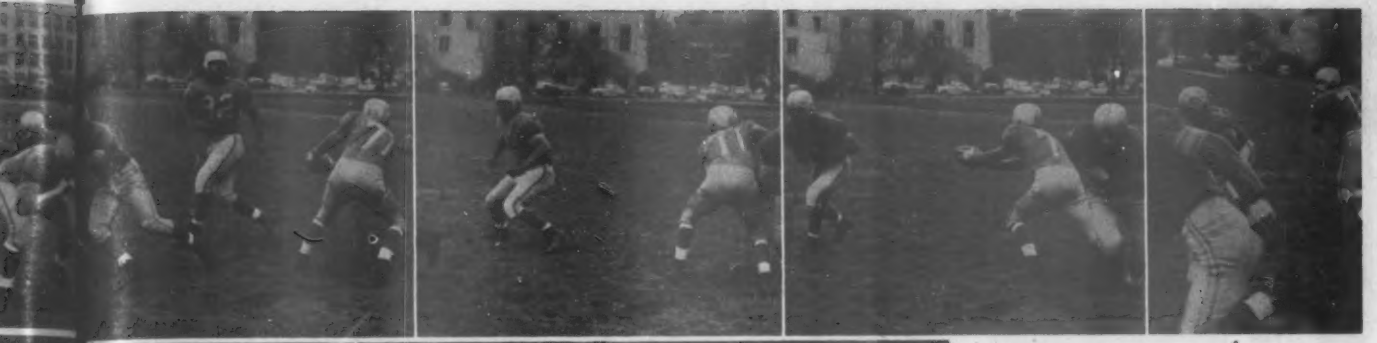
Fake F. B. trap, L. H. to 6

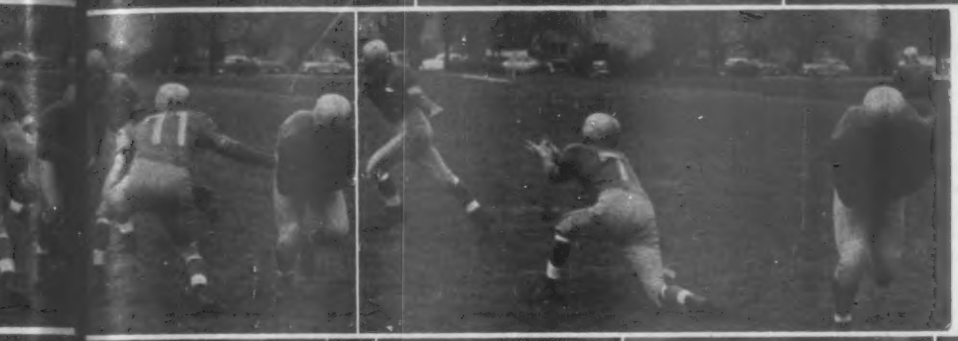
behind the center. When the ball is snapped he makes a very hard, fast, and determined three-quarters reverse pivot on his right foot. While making the pivot he swings the ball around fast and hard, using a swinging motion, in a determined fake to pitch a

Series O

Fullback draw

fast lateral to the fullback. His objective is to make certain that all possible defensive men see the ball and move slightly toward it. When he swings the ball hard and vigorously it is better for the quarterback to use a reverse pivot. If a forward pivot is used, it is necessary to keep the





Series L

Basic fullback trap

ball closer to the body. When the quarterback is swinging the ball and using a forward pivot, pulling guards are likely to collide with it. The reverse pivot keeps the quarterback's body between the ball and the opponents. The quarterback must push

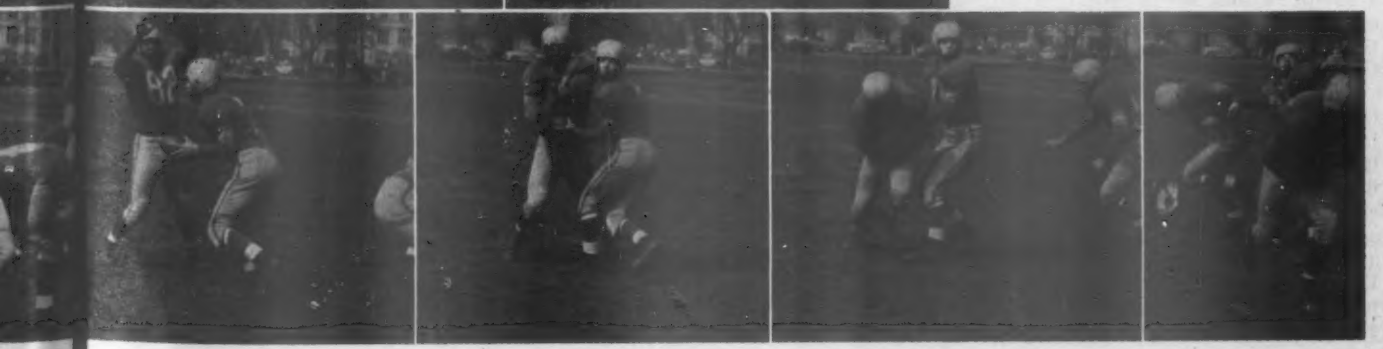
Series N

Fake F. B. trap, R. H. to 6

off hard with his left foot. His swing is aided by a hard thrust of his head and shoulders. The knee of his pivot foot bends to permit him to retain body balance.

Just before the snap count the quar-

(Continued on page 35)



Soccer
an Intercollegiate Sport

By BRUCE L. BENNETT
Soccer Coach, Ohio State University

WITHIN the last five years the athletic directors of many colleges and universities have been confronted by a new candidate for admission to the intercollegiate family —the game of soccer. At the present time in the Western Intercollegiate Conference alone, students at Michigan, Michigan State, Purdue, Indiana, and Ohio State are playing intercollegiate soccer games. In the state of Ohio the number of colleges playing soccer has jumped from two to eight in the space of five years. There is a Midwestern Collegiate Soccer Conference composed of Indiana, Purdue, Earlham, Wheaton, and the University of Chicago. Other colleges starting soccer are found in such widely scattered states as North Carolina, Colorado, Texas, and California, to name a few. This undeniable growth is positive proof that more and more American students are learning that soccer is not just a foreign curiosity but an exciting, competitive team game which has all the fascination and challenge of football or basketball, plus several characteristic values of its own. As an example, last fall 65 students came out for varsity soccer at Oberlin College in Ohio.

College soccer today finds itself in much the same position as college football or baseball in the 1880's. It is a student-initiated activity which is pushing upon a reluctant athletic administration for recognition and acceptance. Although soccer has been an established varsity sport in many Eastern colleges for over a half a century, it has had to start from scratch elsewhere in the United States. A few enthusiastic students form a soccer club and demand varsity support and recognition from an athletic administrator already beset with a multiplicity of headaches. The purpose of this article is to show rather specifically how the divergent viewpoints of the students and the athletic administration may be compromised in a practical way which will recognize the interests of both and contribute to the development of intercollegiate soccer. Such a compromise has been achieved at Ohio State University which last fall became the first Big Ten university to elevate soccer to varsity status after three years of club activity.

The first question to be answered is this: What justification is there for making soccer a varsity sport? In reply, there are a number of reasons which can be cited and these will be presented briefly.

1. Soccer usually draws students who do not go out for other sports. Students who would never participate in intercollegiate sports will come out for soccer. Therefore, soccer is not just another varsity sport for students who are already playing on other teams. It represents a valid means towards achieving the well-established goal of any athletic program—to provide intercollegiate competition for as many students as possible.

2. For those institutions that have students majoring in physical education, the varsity athletic experience is a valuable part in the training of future physical educators and coaches. At Ohio State University, less than one-third of the students who are majoring in physical education participate on varsity teams. Soccer offers more of these students an opportunity to obtain some varsity experience.

3. The low cost and injury hazard of soccer bears repeated emphasis. It costs no more to equip an entire soccer team of eleven men than it does to outfit one football player. Furthermore, the initial cost of purchasing soccer equipment is spread out over several seasons. The cost of soccer balls and field maintenance is nominal when compared with a sport such as baseball. Most injuries incurred in soccer are of a minor nature and relatively infrequent.

4. Colleges are approaching another period of expanding enrollments. This situation will challenge athletic departments to provide more sports for more students. The intercollegiate program should not remain static. Soccer is an inexpensive team game which will provide a varsity athletic experience for more men than any other sport with the possible exception of football.

5. In many colleges and even large universities, football is the only sport offered in the fall; whereas, three or four sports are available during both the winter and spring seasons. Thus, soccer can contribute to a better balanced intercollegiate program. Soccer is not advocated and promoted as an ultimate substitute for football. There is plenty of room for both activities in all colleges during the fall season.

Although the athletic administration may appreciate the value of soccer as a varsity sport; neverthless, varsity recognition can be expected only if there is a vigorous, active group of students who want to play. The administration necessarily needs to be sure that the sport will survive and not die with the graduation of a few devoted adherents. Hence, it is usually desirable for the students to form a soccer club and operate for at least a year in order to merit varsity status. The soccer club, like its

predecessor in football 70 years ago, is very important because it is the best and most acceptable way to promote soccer in colleges that do not have a team. The soccer club, though primarily a student activity, deserves and needs some college assistance. It may be of practical value to consider next in some detail three aspects of a soccer club—its organization, the coaching, finances, and equipment.

Organization

The soccer club is an organization which is governed by the same regulations that apply to other student clubs and activities. Therefore, it is usually responsible to the dean of men and will elect student officers. A constitution may be drawn up. The soccer club at Purdue University has a rather detailed constitution and charges yearly dues. Other clubs seem to operate successfully without a constitution. However, whether there is a constitution or not, most soccer clubs do have a faculty adviser, who may or may not be the coach.

The faculty adviser has two main functions in promoting the development of the soccer club. First, he gives continuity to the club from one year to the next as student officers and membership change. Second, he can help the club in its growth by presenting its case in seeking assistance from various college staff personnel. As a faculty member, he can often get things done which would be almost impossible for a student. As an example, a request from him to have a section of bleachers put up at the home games would carry more weight than a similar request from a student. Or, if the team needed some part of a uniform, the faculty adviser would have more success in dealing with the equipment manager than a student member of the club. In brief, the soccer club needs a friend on the faculty who will stand up for it and try to get those things done that are necessary. If the faculty adviser is in the department of physical education or athletics, he usually knows most of the staff personnel who can help the club, such as the athletic director, trainer, equipment manager, groundskeeper, publicity director, etc.

Student members should do most of the work in the area of relations between the club and the student body. This work would include arranging for meetings, getting out old and new members, making signs for games, preparing other publicity, and the like. The faculty adviser can be helpful in the area of relations between the club and the faculty or administrative officials.

Coaching

Coaching of the college soccer club may be done by various individuals—a member of the athletic or physical education department, a faculty member from some other department, a graduate assistant, or a student member of the club. The most desirable situation is to have a coach from the athletic department, provided he has enough time to do a good job and is interested in soccer. Other faculty members with a soccer background may take over the coaching, particularly in smaller colleges. Even an undergraduate student may serve capably as a coach. At Ohio State University the soccer club in its second season was coached by a senior student who was majoring in physical education. It was a valuable professional experience for him and his services enabled the club to keep together and continue its growth. Student leadership can be effective; however, a mature student who can command the respect of his colleagues is needed.

Another alternative, that of a graduate assistant, deserves special mention. Some of the larger colleges and universities employ graduate students in physical education on a yearly basis as graduate assistants. These students may teach physical education classes, assist in courses for major students, etc. A qualified graduate assistant may also coach the soccer club team. The cost of such service is a very modest one indeed as compared with a full-time coach. In this situation, however, the faculty adviser is still important in furthering the development of the club and maintaining continuity from year to year as graduate assistants change. He can do a great deal to facilitate the coaching of the graduate assistant.

Whoever coaches the club must remember that his primary responsibility is to promote soccer on the campus, and to get new students out for soccer continually, and keep as many of the old ones interested as possible. Therefore, he cannot conduct soccer on quite the same basis as a regular varsity sport. For example, he will have to be lenient with those who miss practice for reasons which a varsity coach might not accept. He will add students who come out in the middle of the season to the team. In other words, the soccer club coach has to strike a happy medium between promoting soccer and winning games. If the latter becomes his chief goal, the life of the club may be abbreviated. It is not likely that compiling a winning streak alone will hasten varsity recognition any faster than developing a sizeable group of students who want to play intercollegiate soccer. Hence, liberal subsitutions to give everybody a chance to play may do more for the growth of the club than to restrict substitutions and win a game. Of course, it is quite possible to regulate game participation so that the more faithful members play more, but every effort should be made to get as many players into the game as possible, if only for a few minutes. The soccer club coach is in a situation which calls for wisdom, tact, and patience.

The practice sessions themselves will probably be on the informal side and should reflect a judicious balance between drills and conditioning on the one hand, and competitive play and scrimmage on the other. The practice sessions should be held every day if possible but should be short and snappy. The schedule of games should not be prolonged to the extent that interest will lag before the end of the season. A good, peppy season of six or seven weeks is preferable to a season of ten weeks that seems to drag out.

Finances and Equipment

The problem of finances is an acute one for college soccer clubs and a variety of methods may be used in different situations. One fact is quite certain. The club members will have to bear some of the expense in one way or another. This may be in the form of club dues, as at Purdue, which amount to $3 a year plus a $2 initiation fee if needed. In another college where the students are rather well-to-do, the players buy their own shoes and shinguards. Trips will usually involve expense for players who may have to pay for their own meals and perhaps reimburse the player who drives. Club members may have to furnish their own cars for away games.

Every effort should be made by the faculty adviser to have the college bear the cost of officials' fees, balls, uniforms, and transportation. Various budgets may be called on for necessary help. Balls may be provided by the physical education department which can also use them in required physical education classes or in classes for students majoring in physical education. The intramural department may provide a sum to pur-

(Continued on page 33)

Selecting the Athlete's Uniform

By TRIS M. CARTA
Roger Ludlowe High School, Fairfield, Connecticut

TRIS CARTA has been coaching football and track for six years and is the executive secretary of the Connecticut High School Coaches Association. He holds a master's degree from Michigan and is working towards his doctor's degree.

WHEN purchasing any type of equipment, after safety, the next factor that the coach has to consider is price. Through experience, we have found that the cheapest price tag does not always point to the best buy. If the coach figures the price of each item per year of use obtained, he will find that quality merchandise is in many cases the least expensive.

Since a large percentage of athletic equipment is constructed from either fabrics or leather goods, the wise coach will know the properties and proper care necessary for each different type of material.

Many of a school's athletic dollars go into equipment which is constructed of fabric. The three basic fibers from which athletic clothing materials are made, include cotton, wool, and the synthetic fibers such as nylon and rayon.

Cotton

The most important vegetable fiber, cotton, is used in jerseys, socks, and pants. Cotton fiber varies in length from two-thirds of an inch to over two inches. The finest variety is the Egyptian, although the American medium length fiber is produced in greatest quantity. Although the spun thread is usually dull and limp, it can be given a glossy appearance by mercerizing. *Durene* is the trade name for woven or knitted goods made from mercerized yarns of superior quality. The word combines durable and sheen.

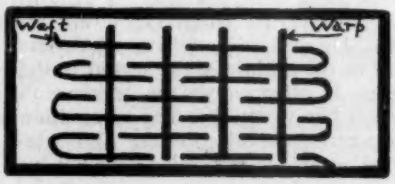
It should be remembered that cotton constructed garments are: 1. Economical because cotton is one of the most plentiful textile fibers. 2. Easy to care for because cottons are easily laundered. 3. Comfortable because cotton is absorbent. For knitted undershirts cotton is appropriate because it absorbs perspiration. Cotton is a vegetable fiber, so in a lightweight it is cool or a napped cotton is relatively warm. 4. Durable when it is spun into strong yarns and woven into close cloths.

Synthetic Fibers

Synthetic fibers are used in all types of uniform jerseys and pants. Rayon, celanese, bemberg, and nylon are the leading synthetic fibers. The early name for these fibers, artificial silk, was a misnomer, as the cellulose base used for all of them (except nylon which is made from coal derivatives) comes from cotton or wood pulp, and therefore they are really vegetable fibers.

When selecting a rayon garment, the coach should be aware that: 1. The lustrous or the dull rayon may be laundered quickly and will not change luster in use. 2. Rayons take dye well. They have good color and are reasonably color fast if the fabric is well finished. 3. White rayons tend to remain white after laundering or exposure to light. Rayons do not tend to yellow with age. 4. Most rayons are considerably weaker when wet. However, their original strength returns after they dry. They must be laundered with great care and should not be allowed to become too soiled. 5. Because rayon fibers lack elasticity, garments may bulge or possibly break at points of strain. Some special types of construction tend to lessen this weakness.

Coaches who have used nylon garments have found that: 1. Nylon is very elastic — a factor which is important in knitted goods. Fabrics whose fibers possess elasticity do not wrinkle as much as inelastic materials. 2. Nylon fibers are stronger than any other natural or man-made fibers. Hence garments made of nylon will be durable. 3. Nylon does not mildew and is not attacked by moths. 4. Nylon can be dyed with the same dyestuffs that are used for rayons so thus can have good color. 5. Nylon is water-resistant and is therefore very fast-drying.



Wool

Wool is used primarily for socks and warm-up jackets. This fiber comes from the fleece of a sheep. The length of the fiber varies from one to eighteen inches depending upon the time the wool has grown and climatic conditions. Wool fiber is springy and resilient, but at the same time it is soft.

The coach must consider the following characteristics of wool: 1. It is comfortable because of the themostatic quality of the wool fibers. 2. Woolens are soft because they have short elastic wool fibers. 3. Shrinkage cannot be controlled when wool is washed in hot water or too much soap and once shrunk can never be returned to its original shape. 4. Moths attack wool.

Considering the properties of the different fibers the coach can make general assumptions concerning a garment before he purchases it. Thus football pants made of nylon will take a mud and water beating and still look good after cleaning. They wear better than cotton or rayon pants. However, nylon is not very good for basketball trunks. The player perspires and the nylon fabric will not absorb moisture as well as cotton. Perspiration will run down the player's legs and is apt to produce chafing. By knowing the basic properties of each fiber, the coach is in a better position to judge where each fiber will benefit him the most.

Fabric Construction — Weaves

Weaves of the fibers are equally important in judging the desirability of an article of athletic clothing.

(Continued on page 36)

By JOHN WHITE
Line Coach, Muhlenberg High School, Laureldale, Pennsylvania

Punters Are Made

WE believe that the art of punting can be taught to just about any member of a football squad who is willing to follow certain instructions and practice diligently. There is not a coach in the country who would question the value of having several fair punters on his squad. A coach can develop his own punters by following several rules that have proved advantageous to us in the past ten years.

If our boys can gain between 8 and 10 yards per exchange, we feel that to be a tremendous advantage. Statistics show that there are approximately six occasions in a high school game when the situation calls for a punt. The additional 50 yards gained proved, in many instances, the margin of victory.

There are many schools of thought, varying greatly on how to teach punting and they all have merit. Here is a set of simple rules, rather uniform, that could assist a coach in developing a good punter.

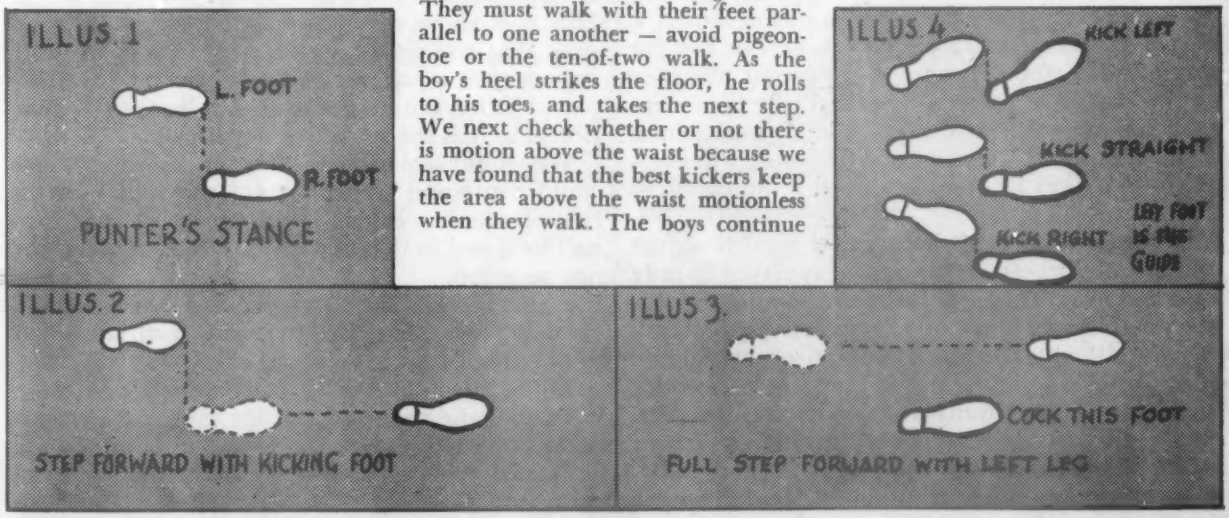
The coach should begin by selecting his personnel. Stature is not too important; however, the taller the target the easier the center's job. With height go other assets — big hands and big feet. But a smaller boy who has quick reflexes can do the job equally well. There are many coaches who feel a backfield man should always do the kicking. All of our boys are permitted to try, and we do not hesitate to use a lineman if he has the temperament to practice and improve. Several potentials should be selected; we like a pair and a spare for each squad — varsity, junior varsity, and junior high school — nine punters in all. It is a good practice to orient these boys so they know what is expected of them in the way of practice and responsibility in the game.

JOHN WHITE is a graduate of Kutztown State Teachers College where he captained the football team. He served in the infantry and was wounded twice. For eight years he has been at his present location where a record of 46 wins and 3 ties has been compiled against only 14 losses. He is currently doing graduate work at Temple towards a doctor's degree.

The boys should be started in the gymnasium wearing gymnasium sneakers. We begin by checking their normal strides and walking habits. They must walk with their feet parallel to one another — avoid pigeon-toe or the ten-of-two walk. As the boy's heel strikes the floor, he rolls to his toes, and takes the next step. We next check whether or not there is motion above the waist because we have found that the best kickers keep the area above the waist motionless when they walk. The boys continue the walk on the boundary lines in the gymnasium. When the coach finds the boys who have a natural motion he knows he has the material he needs. Our slogan is "Kicking is walking through the ball." It reminds the boy to move in a walking motion when he punts. We do not like to have the boy arch his back; this takes away his body momentum. We have him lean forward (never backward).

Our next step is to give the boy his starting stance. His right foot should be one-half stride ahead of his left foot (Illustration 1). His body should be relaxed, leaning forward at the waist, arms outstretched, and hands about waist high. The extended fingers of his right hand should reach to a line with the heel of his left hand. He should practice receiving the snap from the center, giving with the ball by bending his elbows. Then when he extends his arms to arm's length, his hands are on either side of the ball. We like the laces up —a slight turn to the inside—with the point of the ball farthest away from the boy's body so that it will match the natural curve of his instep. Now we have him release his

(Continued on page 37)



The ATHLETIC JOURNAL

Vol. XXXIV June, 1954 No. 10

Published by

THE ATHLETIC JOURNAL PUBLISHING CO.
6858 Glenwood Avenue
Chicago 26, Illinois

MAJOR JOHN L. GRIFFITH *Founder* JOHN L. GRIFFITH *Publisher*

Filling a Void

TWO years ago this month we devoted our editorial column to a survey we conducted in regard to spring football practice. The survey was conducted among Illinois high schools which had dropped spring football the previous year.

One of the major arguments for the abolishment of spring practice is that by so doing the spring sports will receive greater participation. The survey determined that half of the players on the Illinois high school football squads had gone out for spring sports who would not have done so if there had been spring football.

Sixteen per cent of the schools had added one or more sports to their programs to fill the void. The schools not adding new sports were asked what the members of the football squad who were not out for spring sports were doing in the way of athletics. Eleven per cent indicated that those not out for spring sports were working in industrial plants or on the farms: 19 per cent indicated the boys were participating in athletics through physical education classes or intramurals; and 61 per cent answered the question by stating "nothing" or words to that effect.

Football, because of the number needed on the squads and the cost of equipment, is played in only a limited number of small schools. Because the survey was directed only to schools having football, the enrollments were, comparatively speaking, quite large. However, it was interesting to notice that there was practically no difference in the average enrollment for schools favoring the return of spring practice and those opposing it. Specifically, the average enrollment for those in favor of spring practice was 566.8 and for those opposing it the average enrollment was 562.5.

We closed the editorial two years ago by stating: "The question then remains, have we in our endeavor to increase participation in spring sports done so at the cost of overall participation in athletics?"

Whether or not schools have spring football is not our concern. We are concerned though with the decreased total participation in athletics. Not only are there the 61 per cent who are doing "nothing," but there are those who have been forced from the baseball and track squads, in many cases, by the athletically superior football player. Let us take the case of three boys Arnold, Bob, and Charlie. Arnold and Bob are two husky linemen. Bob voluntarily chooses to go out for track and wins a place on the team in the weight events. Charlie has never played football but is husky enough and he becomes a second shot putter on the track team. Meanwhile, Arnold doesn't care about track and goes out for spring football.

The following year finds spring football abolished and Arnold goes out for track, proceeding to take over the number two spot as shot putter on the track team. Charlie works hard but when he doesn't make the trips he becomes discouraged, eventually starts finding excuses for not coming to practice, and finally stops coming out altogether.

The net result is a decrease of one in the number participating in athletics during the spring sport season.

The situation becomes more acute with each passing year because the huge number of students now in the primary grades are approaching the secondary school age levels. Estimates indicate there will be a third more students in some high schools.

If the school administrators feel that the abolishment of spring football practice is necessary, then they must make available other means of providing the benefits which are to be found in athletics. The Educational Policies Commission stated: "We believe that co-operation and competition are both important components of American life. Athletic participation can help teach the values of co-operation as well as the spirit of competition."

We would like to suggest soccer as a sport which could easily and admirably fill the void. In the first place soccer can be played on the existing football field and in that regard additional facilities are not required.

In the second place soccer calls for eleven players on a team; thus the squad sizes will be similar to the squad sizes in football.

In the third place equipment needs are extremely limited and the sport can therefore be operated on a very small budget.

Finally, soccer is as fine a conditioning sport as

(Continued on page 43)

Outstanding Favorites

ON THE NATION'S GRIDIRONS...

SAFETY SUSPENSION HELMETS

Riddell®

HERE is a winning combination you'll see in action on football fields throughout the country.

Yes, year after year, North, South, East and West, outstanding teams in every competition consistently select RIDDELL athletic equipment. Equipment that combines expert design, skilled craftsmanship and the finest materials to assure long lasting Comfort and Safety for the wearer.

Famous for quality for over a quarter of a century, you can rely on RIDDELL!

See Your RIDDELL Dealer!

FOOTBALL SHOES

JOHN T. Riddell INC.

1259 NORTH WOOD ST. CHICAGO 22, ILL.

Specialists in Finer Athletic Equipment for Head and Foot!

Turn Night Into Day . . .

The CROUSE-HINDS Way!

get the crowds this season . . .

Crouse-Hinds, pioneer in sports lighting, offers you the benefit of years of experience in planning lighting for athletic fields, large and small.

Be ready for the coming season's sports . . . send for our bulletins covering NEMA standard plans for lighting baseball, softball, and football fields.

Or send a drawing, with explanatory notes . . . our lighting engineers will gladly recommend proper type and arrangement of floodlights for your field.

Let Crouse-Hinds help you fill the stands . . . write today!

Crouse-Hinds Type FLA
The ideal floodlight
for general sports lighting

CROUSE-HINDS COMPANY
Syracuse 1, N. Y.

OFFICES: Birmingham — Boston — Buffalo — Chicago — Cincinnati — Cleveland — Dallas — Denver — Detroit — Houston
Indianapolis — Kansas City — Los Angeles — Milwaukee — New Orleans — New York — Philadelphia — Pittsburgh
Portland, Ore. — San Francisco — Seattle — St. Louis — St. Paul — Tulsa — Washington.
RESIDENT REPRESENTATIVES: Albany — Atlanta — Baltimore — Charlotte — Corpus Christi — Reading, Pa. — Richmond, Va. — Shreveport
Crouse-Hinds Company of Canada, Ltd., Toronto, Ont.

A Nationwide Distribution Through Electrical Distributors

FLOODLIGHTS · AIRPORT LIGHTING · TRAFFIC SIGNALS · CONDULETS

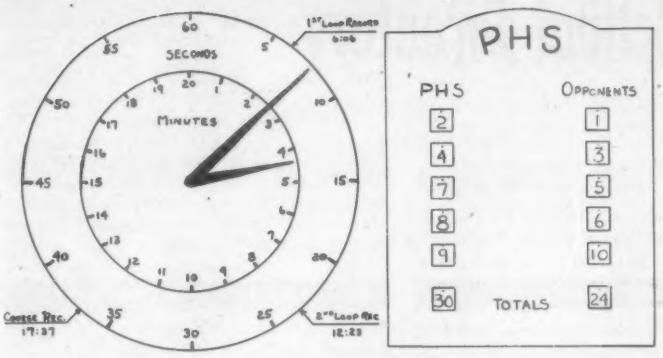


Illustration 1 shows a home constructed clock. The face has a two and a half foot radius; the material is Masonite. Regarding the motor, any large commercial clock can be used. It will be noticed that the second hand is emphasized; this is most important to the spectator. Illustration 2 shows the scoreboard which is also made of Masonite with nails spaced to hold as large a placard as can be used for better spectator visibility from a distance.

Cross-Country Can be a Spectator Sport

By CARL F. FISCHER

Track Coach, University of Connecticut

RUNNERS ready!" Bang! Twenty or more thinly clad runners leap over the starting line and are away on a cross country run of two and a half to five miles, cheered on by the coaches, the managers, and a few parents who are lining the first 20 or 30 yards of the run.

The next time the runners are seen is 15 to 25 minutes later when they are observed coming into the final stretch for the finish. The score is tabulated by the managers, the teams give each other a cheer, and someone finally announces the score; 18 for Hall High and 37 Ford High; Hall the winner! Then, heard among the few spectators are, "Is that the correct announcement, don't they mean Ford won, they had the higher score?" "What is the winning time?" "Is that near the record?" "How fast did the winner run?"

These observations present several factors in the conduct of the sport of cross country running that can be improved upon to place cross country in as enviable a spot as any other spectator sport. Anyone who has witnessed cross country meets, high school or college, will recognize that an analysis will bring out two important conditions which tend to keep people away; first, a knowledge of the activity as a competitive sport and, second, the opportunity to become more of a spectator. The general public likes to listen to familiar music, the wife of the baseball fan does not like baseball because she does not understand it," and the football fan prefers the one platoon system because he can see who is on the field and follow the play. The average sports fan likes to get as close to the sport as he can through knowing the sport and seeing the activity performed.

Individual sports such as swimming, track, cross country, and golf demand that the spectator know more about each individual performer in order to understand and enjoy the performance witnessed. The diagnosis shows that ignorance of the sport, and being able to follow the runners are the ills that need treatment.

The education of the prospective cross country fan can be handled in several ways. First, in the high school as well as the college a series of articles prior to the season in the school paper can emphasize the method of scoring, the records on the home course, the prospects for the season, and the plans for making the meets more interesting to the spectators. In the matter of scoring, cross country is one of the few sports that has the low score determine the winner. Although everyone accepts this fact in golf, a low score for winning in a team contest still remains a paradox to many. Team records, course records, and team prospects are all a very necessary background for anyone interested in enjoying a meet. Every bit of local color should be part of the pre-season and pre-meet publicity. Many schools, and one in particular that we have in mind, posts pictures of individuals and groups on the school bulletin board. These pictures give a pictorial presentation of the previous meets. At the school in mind, the enthusiasm of the coach through his hobby of photography has caused more boys to try out for cross country than tried out for the football team and has produced more spectators at a meet than witnessed a football game. These statements are true; the school is a large high school in the state of Connecticut.

Second, the layout of the course can do a great deal to improve spectator interest. We understand that the course in many places must of necessity follow a set path which may not be changed due to local conditions, but if this is not the case, the following suggestions are sure to increase spectator participation and interest.

The old method where the team leaves the field and does not return until the finish of the race definitely should be changed. In high school competition with approximately two and a half miles to run, the first quarter should be run on the track to give the spectators a good view of the start and an idea how the team leaves the field. At the end of the next mile or mile and a quarter, approximately six minutes later, the first loop should bring the runners past the bleachers or crowd. The same loop or another loop to make up the remaining distance needed should be traversed by the runners, bringing them back to the field for the finish. Ideally, there should be both a quarter mile on the track at the beginning and end of the race for the best spectator interest. Many individual contests between runners in the last

(Continued on page 32)

CARL FISCHER graduated from Springfield College in 1929 and started his coaching career at Palmyra, New York, High School. He also coached at Slippery Rock Teachers College before going to Connecticut in 1942. Fischer is on sabbatical leave this spring semester in order to complete work for his doctor's degree at his alma mater.

Coaching School Directory

ADELPHI COLLEGE C. S.

Garden City, L. I., N. Y. **Aug 9-11**

Courses—Basketball.
Staff—John Bach, J. Birney Crum, Dan Lynch, Ken Loeffler, and Elmer McCall.
Information—Tuition $15.00 includes room. Board $2.00 to $2.50 per day.
Directors—John E. Sipos, Simpson High School, Huntington, New York and George Faherty, Adelphi College, Garden City, L. I., New York.

See advertisement page 32

ALABAMA COACHING SCHOOL

Tuscaloosa, Alabama **Aug. 9-12**

Courses—Football, basketball, baseball, track, and training.
Staff—Lowell "Red" Dawson, Bruce Drake, Happy Campbell and Charles Stapp.
Information—Tuition and room free.
Director—H. D. Drew, University of Alabama, University, Alabama.

CALIFORNIA WORKSHOP

San Luis Obispo, Calif. **Aug. 9-20**

Courses—Football, basketball, baseball, track, tennis, swimming, golf, training, archery, gymnastics, and physical education.
Staff—"Chuck" Taylor, "Puck" Dowell, "Paddy" Cottrell, Jess Mortensen, Homer Beatty, George Bican, Elam Hill, Ken Fagans, Bob Fatjo, Gene Smith, and Myron Anderson.
Director—Al Arps, San Fernando High School. San Fernando, California.

COLORADO H.S. COACHES ASSN.

Denver, Colorado **Aug. 18-20**

Courses—Football and basketball.
Staff—"Biggie" Munn and Branch McCracken.
Information—Tuition $10.00. Approximate cost of room $5.00 to $10.00 per day; board $3.00 to $5.00 per day.
Director—N. C. Morris, 1532 Madison Street, Denver, Colorado.

COLORADO, UNIV. OF

Boulder, Colorado **June 14-19**

Courses—Football, basketball, track, baseball, and training.
Staff—Ray Eliot, Dallas Ward, Bebe Lee, Frank Potts, Frank Prentup, John Rockwell, and Forrest Twogood.
Information—Tuition $10.00.
Director—Harry G. Carlson, University of Colorado, Boulder, Colorado.

See advertisement page 40 April

CONNECTICUT, UNIV. OF

Storrs, Conn. **Aug. 24-26**

Courses—Football and basketball.
Staff—Red Dawson, Len Waters, Bob Ingalls, Ken Loeffler, and Hugh Greer.
Director—J. O. Christian, Athletic Director, University of Connecticut, Storrs, Connecticut.

See advertisement page 48 May

FLORIDA COACHING SCH.

Gainesville, Florida **Aug. 9-12**

Courses—Football, basketball, and track.
Staff—Sid Gillman, Perry Moss, "Hank" Crisp, and Percy Beard.
Director—I. W. Brant, Duncan U. Fletcher High School, Jacksonville Beach, Florida.

FLORIDA STATE UNIV.

Tallahassee, Florida **June 10-12**

Courses—Football.
Staff—Directed by Tom Nugent and staff.
Information—Registration fee $15.00 includes room.
Director—Howard G. Danford, Director of Athletics, Florida State University, Tallahassee, Florida.

See advertisement page 54 April

IDAHO COACHES ASSN. C. S.

Sun Valley, Idaho **Aug. 9-13**

Courses—Football, basketball, track, and training.
Staff—Chuck Mather, Everett Shelton, Duffy Holt, Stan Heiserman, and Joe Glanders.
Information—Tuition $10.00 for members; $15.00 for non-members. Room and board $50.00 for entire week.
Director—Jerry Dellinger, Jerome High School, Jerome, Idaho.

See advertisement page 54 May

ILL. NORMAL-WESTERN C.S.

Macomb, Illinois **June 8-9**

Courses—Football.
Staff—Forest Evashevski. Others to be announced.
Information—Tuition free.
Director—Ray Hanson, Athletic Director, Western Illinois State College, Macomb, Ill.

SOUTHERN ILLINOIS UNIV.

Carbondale, Illinois **Aug. 3rd wk.**

Courses—Football and basketball.
Staff—To be announced.
Information—Tuition free. Room $2.00 per day; board $1.75 per day.
Director—Glenn "Abe" Martin, Southern Illinois University, Carbondale, Illinois.

INDIANA BASKETBALL SCHOOL

Kokomo, Indiana **Aug. 5-7**

Courses—Basketball.
Staff—To be announced.
Information—Tuition $10.00 does not include room and board. Average cost of room $3.00 and board $4.00 per day.
Director—Cliff Wells, Tulane University, New Orleans, Louisiana.

KANSAS H.S. ACTIVITIES ASSN.

Wichita, Kansas **Aug. 16-20**

Courses—Football, basketball, and training.
Staff—"Duffy" Daugherty and Bill Meek. Others to be announced.
Information—Tuition $10.00.
Director—E. A. Thomas, 1300 Topeka Blvd., Topeka, Kansas.

KANSAS, UNIV. OF

Lawrence, Kansas **June 10-Aug. 7**

Courses—Basketball and training.
Staff—Forrest C. "Phog" Allen.
Information—Regular summer session fees.
Director—Henry A. Shenk, University of Kansas, Lawrence, Kansas.

LOUISIANA H.S. COACHES ASSN.

Baton Rouge, Louisiana **Aug. 4-6**

Courses—Football.
Staff—"Chuck" Mather and Hugh Daugherty.
Information—Tuition $3.00. Housing free to all coaches.
Director—Woodrow W. Turner, Byrd High School, Shreveport, Louisiana.

UNIV OF MARYLAND

College Park, Maryland **June 24-26**

Courses—Football, basketball, and training.
Staff—Jim Tatum, Bud Milliken, and Duke Wyre.
Information—Tuition for high school coaches $15.00; college coaches $25.00. Fee includes room; board $3.00 per day.
Director—Robert Ward, Box 295, University of Maryland, College Park, Maryland.

See advertisement page 59 February

NORTHERN MICHIGAN C.S.

Marquette, Michigan **Aug. 5-7**

Courses—Football, basketball, and track.
Staff—Bennie Oosterbaan, Dr. Forrest C. Allen, and Jim Kelly.
Information—Tuition $12.00 includes room and board.
Director—C. V. "Red" Money, Northern Michigan College, Presque Isle Ave., Marquette, Michigan.

MICHIGAN, UNIV. OF

Ann Arbor, Michigan **June 21-July 2**

Courses—Football, basketball, track, training, golf, wrestling, and intramurals.
Staff—Bennie Oosterbaan, William Perigo, Don Canham, James Hunt, Albert Katzenmeyer, Clifford Keen, and Earl Riskey.
Information—Tuition $20.00 resident; $30.00 non-resident. Approximate cost of room and board for two week period in dormitory $45.00.
Supervisor of Course—Howard C. Leibee, Waterman Gymnasium, University of Michigan, Ann Arbor, Michigan.

N. E. MISSOURI C. S.

Kirksville, Missouri **July 22-23**

Courses—Football, basketball, track, and training.
Staff—Terry Brennan, Jack Cramer, and members of N. E. Missouri State Teachers College coaching staff.
Information—Tution $7.50.
Director—Dr. William Healey, Athletic Director, Northeast Missouri State Teachers College, Kirksville, Missouri.

NEW YORK STATE C.S.

Troy, New York **Aug. 23-26**

Courses—Football, basketball, soccer, baseball, and track.

Staff—Hugh "Duffy" Daugherty, Steve Owen, Harry Combes, Glenn Warner, and Fran O'Rourke.
Director—Philip J. Hammes, Proctor High School, Utica, New York.

See advertisement page 39

UPSTATE N. Y. BASKETBALL C. S.

Delhi, New York — **July 1-3**
Courses—Basketball.
Staff—"Dudey" Moore and "Taps" Gallagher. Others to be announced.
Information—Tuition $15.00; $25.00 for two men from the same school.
Director—Edward J. Shalkey, Delaware Academy, Delhi, New York.

See advertisement page 37

OHIO H.S. COACHING SCHOOL

Springfield, Ohio — **Aug. 9-13**
Courses—Football.
Staff—"Duffy Daugherty, "Woody" Hayes, Carroll Widdoes, and Sid Gillman.
Information—Tuition $15.00 does not include board and room. Cost of room $6.50 to $10.00 per day; board $3.00 to $4.50 per day.
Directors—L. G. Ronemus and James A. McDonald, Senior High School, 700 S. Limestone St., Springfield, Ohio.

See advertisement page 52 May

OKLAHOMA COACHES ASSN.

Oklahoma City, Oklahoma — **Aug. 8-12**
Courses—Football and basketball.
Staff—Don Faurot, Gomer Jones, and Bowden Wyatt. Others to be announced.
Information—Tuition $10.00. Average cost of room $3.50 to $5.00 per day; board $3.00 to $4.00 per day.
Director—Clarence Breithaupt, 3420 N. W. 19th St., Oklahoma City, Oklahoma.

OREGON, UNIV. OF

Eugene, Oregon — **June 14-19**
Courses—Football, basketball, baseball, track, and wrestling.
Staff—"Red" Sanders, Pete Susick, Robert Feerick, Bill Borcher, Don Kirsch, Bill Bowerman, Robert Newland, and Bill Hammer.
Information—Tuition $14.00. May be applied toward regular summer session tuition. Dormitory rooms $2.00 per day.
Director—Dean Paul Jacobson, University of Oregon, Eugene, Oregon.

See advertisement page 53 May

EASTERN PA. COACHES ASSN.

East Stroudsburg, Pa. — **June 21-24**
Courses—Football and basketball.
Staff—Eddie Erdelatz, Forrest Evashevski, Sid Gillman, and Ben Carnevale.
Information—Tuition $40.00 includes room and board.
Director—Marty Baldwin, Box 205, East Stroudsburg, Pennsylvania.

PENN STATE COL

State College, Pa. — **June-Aug.**
Courses—Basketball, training, life saving and water safety, and intramurals.
Staff—Elmer A. Gross and Charles E. Medlar.
Information—Tuition $11.00 per credit hour. Approximate cost of room $1.00 per day (double room) per person; board $2.00 per day per person.
Director—M. R. Trabue, Room 102, Burrows Bldg., State College, Pennsylvania.

RIVER FALLS COACHING CLINIC

River Falls, Wisconsin — **June 10-12**
Courses—Football, basketball, and training.
Staff—Bud Wilkinson and Bucky O'Connor. Others to be announced.
Tuition—$15.00.
Director—Phil Belfiori, Wisconsin State College, River Falls, Wisconsin.

SO. CAROLINA COACHES ASSN.

Columbia, South Carolina — **Aug. 1-6**
Courses—Football and basketball.
Staff—Ray Eliot, Bob King, "Red" Sanders, and Eddie Hickey.
Director—Harry Hedgepath, 1623 Harrington St., Newberry, South Carolina.

See advertisement page 49 May

SOUTHERN UNIV.

Baton Rouge, La. — **June 14-19**
Courses—Football, basketball, track, baseball, and training.
Staff—Ken Loeffler and Warren Giese.
Information—Tuition $10.00. Room and board approximately $10.00.
Director—A. W. Mumford, Southern University, Baton Rouge, Louisiana.

TENNESSEE COACHES ASSN.

Cookeville, Tenn. — **July 28-31**
Courses—Football, basketball, track and training.
Staff—Darrell Royal, Wade Walker, Jim Pittman, Paul McBrayer, Raymond Brown, Calvin Frey, and A. L. Allen.
Information—Tuition free. Room and board $8.50 for entire clinic.
Director—P. V. Overall, Athletic Director, Tennessee Polytechnic Institute, Cookeville, Tennessee.

TEXAS H.S. COACHES ASSN.

Dallas, Texas — **Aug. 9-14**
Courses—Football, basketball, baseball, track, and training.
Staff—"Red" Sanders, Bobby Dodd, R. Graves, Frank Broyles, Jess Neely, Joe Davis, Cecil Grigg, Alex Hooks, Frank Anderson, and Wayne Rudy. Others to be announced.
Information—Approximate cost of room $3.00 per day.
Director—L. W. McConachie, 2901 Copper St., El Paso, Texas.

See advertisement page 32

UTAH STATE COACHING SCHOOL

Logan, Utah — **June 1-5**
Courses—Football, basketball, baseball, and training.
Staff—Jim Tatum and "Tippy" Dye.
Information—Tuition $10.00.
Director—John Roning, Athletic Director, Utah State College, Logan, Utah.

See advertisement page 60 April

VA. HIGH SCHOOL LEAGUE

Blacksburg, Virginia — **July 1-3**
Courses—Football, basketball, baseball, track, and training.
Staff—To be announced.
Tuition—To be announced. Average cost of room $1.00 and board $1.80 per day.
Director—Frank O. Moseley, Athletic Director, Virginia Polytechnic Institute, Blacksburg, Virginia.

VIRGINIA STATE COLLEGE

Petersburg, Virginia — **July 6-10**
Courses—Football and basketball.
Staff—James Tatum, "Chuck" Mather, and "Dudey" Moore.
Director—S. R. "Sal" Hall, Virginia State College, Petersburg, Virginia.

See advertisement page 37

WASHINGTON H.S. COACHES

Seattle, Washington — **Aug. 15-21**
Courses—Football, basketball, baseball, track, and training.
Staff—Jack Curtice, Bruce Drake, Earl Johnson, and Roland Logan. Others to be announced.
Information—Tuition free to members; $10.00 for non-members.
Director—A. J. Lindquist, 3215 E. Mercer, Seattle, Washington.

See advertisement page 50 May

WEST VIRGINIA UNIVERSITY

Morgantown, W. Va. — **June 3-July 9**
Courses—Football, basketball, baseball, and training.
Staff—Art Lewis, "Chuck" Mather, Carney Laslie, Red Brown, Branch McCracken, I. E. Rodgers, Steve Harrick, Whitey Gwynne, and Charles Speidel.
Information—Tuition $5.00 per credit hour for residents of West Virginia; $8.00 per credit hour for non-residents. Average cost of room and board $3.00 per day.
Director—Ray O. Duncan, Dean, School of Physical Education and Athletics, West Virginia University, Morgantown, West Virginia.

WISCONSIN H.S. COACHES ASSN.

Madison, Wisconsin — **Aug. 9-13**
Courses—Football, basketball, baseball, track, training, tennis, and wrestling.
Staff—Ivy Williamson, Bud Foster, Art Mansfield, Riley Best, Walt Bakke, Carl Sanger, and George Martin.
Information—Tuition $1.00 for members; $10.00 for non-members. Average cost of room $1.50 and board $2.50 per day.
Director—Harold A. Metzen, 1809 Madison St., Madison, Wisconsin.

See advertisement page 51 May

OCEAN CITY CLINIC

Ocean City, N. J. — **June 11-12**
Courses—Basketball.
Staff—Ken Loeffler.
Information—Tuition $10.00.
Sponsors—Exchange Club, Ocean City, New Jersey.

See advertisement page 39

WHITTIER COL. C. S.

Whittier, Calif. — **July 17**
Courses—Football and training.
Staff—Warren Woodsen, Red Sanders, Lynn Waldorf, and Roland Logan.
Director—George H. Allen, Whittier College, Whittier, California.

Here are the organizations, which, through their financial support, make possible the valuable, non-profit work of

THE ATHLETIC INSTITUTE

AALCO MANUFACTURING CO.
St. Louis, Mo.
ACE CARTON CO.
Chicago, Ill.
ALBANY FELT CO.
Albany, N. Y.
AMERICAN BOX BOARD CO.
Grand Rapids, Mich.
AMERICAN FELT CO.
Glenville, Conn.
AMERICAN GUT STRING MFG. CO.
Chicago, Ill.
AMERICAN PLAYGROUND DEVICE CO.
Anderson, Ind.
AMERICAN THREAD CO.
Chicago, Ill.
ASHAWAY PRODUCTS, INC.
Ashaway, R. I.
THE ATHLETIC JOURNAL
Chicago, Ill.
ATLAS ATHLETIC EQUIPMENT CO.
St. Louis, Mo.

BANCROFT SPORTING GOODS CO.
Pawtucket, R. I.
A. S. BARNES & CO.
New York, N. Y.
THE BIKE WEB CO.
Chicago, Ill.
BOYS' LIFE
New York, N. Y.
BROOKS SHOE MFG. CO.
Philadelphia, Pa.
BRUNSWICK-BALKE-COLLENDER CO.
Chicago, Ill.
BURTON MANUFACTURING CO.
Jasper, Ala.

CALNAP TANNING COMPANY
Napa, Calif.
CARON SPINNING CO.
Rochelle, Ill.
CARRON NET COMPANY
Two Rivers, Wis.
CENTRAL STATES THREAD CORP.
Cincinnati, Ohio
CHAMPION KNITWEAR CO. INC.
Rochester, New York
CHICAGO TANNING CO.
Chicago, Ill.
CHARLES F. CLARK, INC.
Chicago, Ill.
SAMUEL COANE
Philadelphia, Pa.
CONVERSE RUBBER CO.
Chicago, Ill.
B. A. CORBIN & SON CO.
Marlboro, Mass.
CORTLAND LINE CO.
Cortland, N. Y.
CRAMER CHEMICAL CO.
Gardner, Kansas
CROWN FASTENER CORP.
New York, N. Y.

JOHN B. DAVIDSON WOOLEN MILLS
Eaton Rapids, Mich.
DAYTON RACQUET CO
Arcanum, Ohio
J. deBEER & SON
Albany, N. Y.
DENKERT INC.
Johnstown, N. Y.
DEXTER-WAYNE CO.
Lansdale, Pa.
DIXIE MERCERIZING CO.
Chattanooga, Tenn.
J. A. DUBOW MANUFACTURING CO.
Chicago, Ill.
DUNLOP TIRE & RUBBER CORP.
New York, N. Y.
EDERER DIVISION
LINEN THREAD CO.
Chicago, Ill.
ENDICOTT JOHNSON CORP.
Endicott, N. Y.

EVERLAST
New York, N. Y.

F. C. FEISE CO.
Narberth, Pa.
FELCO ATHLETIC WEAR CO.
New York, N. Y.
THE FISH NET & TWINE CO.
Jersey City, N. J.
S. B. FOOT TANNING CO.
Redwing, Minn.

THE GENERAL ATHLETIC PRODS. CO.
Greenville, Ohio
GENERAL FIBRE BOX CO.
West Springfield, Mass.
GENERAL MILLS, INC.
Minneapolis, Minn.
GENERAL SPORTCRAFT CO. LTD.
New York, N. Y.
GOLFDOM
Chicago, Ill.
J. H. GRADY MFG. CO.
St. Louis, Mo.
GUNNISON BROS., INC.
Girard, Pa.

HAARTZ-MASON, INC.
Watertown, Mass.
HANNA MANUFACTURING CO.
Athens, Ga.
HARVARD SPECIALTY
MANUFACTURING CO.
Cambridge, Mass.
H. HARWOOD & SONS
Natick, Mass.
HILLERICH & BRADSBY CO.
Louisville, Ky.
HILTS-WILLARD GLOVE COMPANY
Gloversville, New York
HIRSCH FABRICS CORP.
New York, N. Y.
HOFFMANN-STAFFORD TANNING CO.
Chicago, Ill.
HORWEEN LEATHER COMPANY
Chicago, Ill.
ALAN HOWARD, INC.
New York, N. Y.
THE J. L. HUDSON CO.
Detroit, Mich.
HUGHES-CONSOLIDATED, INC.
New York, N. Y.
HUTCHINSON BROS. LEATHER CO.
Cincinnati, Ohio
HYDE ATHLETIC SHOE CO.
Cambridge, Mass.

ILLINOIS MECHANICAL LEATHER CO.
Chicago, Ill.
INDIAN ARCHERY & TOY CO.
Evansville, Ind.
INDUSTRIAL SPORTS AND
RECREATION
Fairfield, Conn.
IVORY SYSTEM
Peabody, Mass.

THE JOHNSTOWN KNITTING MILL CO.
Johnstown, N. Y.
JONES & NAUDIN, INC.
Gloversville, N. Y.
JOYAL-VAN DALE, INC.
Pawtucket, R. I.
E. P. JUNEMAN CORP.
Chicago, Ill.

ARTHUR KAHN CO.
New York, N. Y.
JOSEPH G. KREN
Syracuse, N. Y.
KENNEDY SPORTING GOODS
MFG. CO., INC.
Utica, N. Y.

A. C. LAWRENCE LEATHER CO.
Peabody, Mass.
THE LINEN THREAD CO.
New York, N. Y.

THE MacGREGOR CO.
Cincinnati, Ohio
MacGREGOR GOLF CO.
Cincinnati, Ohio
N. J. MAGNAN CORP.
North Attleboro, Mass.
MARBA, INC.
Buffalo, N. Y.
MARSHALL CLOTHING MFG. CO.
Butler, Ind.
MARTIN & MARTIN
Chicago, Ill.
McLAUGHLIN-MILLARD, INC.
Dolgeville, N. Y.
FRED MEDART PRODUCTS, INC.
St. Louis, Mo.
THE MEYERCORD CO.
Chicago, Ill.
THE MONECO CO.
New Haven, Conn.

NATIONAL BASEBALL CONGRESS
Wichita, Kans.
NATIONAL BOWLING COUNCIL
Toledo, Ohio
NATIONAL ELECTRICAL MFG. ASSN.
New York, N. Y.
NATIONAL SPORTING GOODS ASSN.
Chicago, Ill.
representing all its sporting goods
dealer members.
NATIONAL SPORTS EQUIPMENT CO.
Fond du Lac, Wis.
NATIONAL VULCANIZED FIBRE CO.
Wilmington, Del.
NELSON KNITTING CO.
Rockford, Ill.
F. H. NOBLE & COMPANY
Chicago, Ill.
NOCONA LEATHER GOODS CO.
Nocona, Texas
NONPARIEL MANUFACTURING CO.
St. Louis, Mo.

OLIVER BROS.
725 Arch St., Philadelphia 6, Pa.
THE OHIO-KENTUCKY MFG. CO.
Ada, Ohio

PALM, FECHTELER & CO.
Weehawken, N. J.
BEN PEARSON INC.
Pine Bluff, Ark.
PENNSYLVANIA ATHLETIC PRODUCTS
Akron, Ohio
PETERSEN & COMPANY
Philadelphia 44, Pa.
F. C. PHILLIPS, INC.
Stoughton, Mass.
POWERS MANUFACTURING CO.
Waterloo, Iowa
A. H. PUGH PRINTING CO.
Cincinnati, Ohio

RAWLINGS SPORTING GOODS CO.
St. Louis, Mo.
GEO. A. REACH CO.
Philadelphia, Pa.
RED FOX MFG. CO.
(Division of Cullum & Boren Co.)
Dallas, Texas
CHARLES A. RICHARDSON, INC.
West Mansfield, Mass.
JOHN T. RIDDELL, INC.
Chicago, Ill.
ROCKFORD TEXTILE MILLS, INC.
Rockford, Ill.
A. H. ROSS & SONS CO.
Chicago, Ill.

F. RULISON & SONS, INC.
Johnstown, N. Y.

SAND KNITTING MILLS CO.
Chicago, Ill.
SAWYER TANNING CO.
Napa, Calif.
SCHOLASTIC CORPORATION
New York, N. Y.
THE SEAMLESS RUBBER CO.
New Haven, Conn.
SEARS, ROEBUCK & CO.
Chicago, Ill.
SELLS AERIAL TENNIS CO.
Kansas City, Kansas
R. S. L. SHUTTLECOCKS CO.
Altoona, Pa.
ED. W. SIMON CO.
New York, N. Y.
WILLIAM SKINNER & SONS
New York, N. Y.
SOUTHERN MANUFACTURING CO.
Alexander City, Ala.
A. G. SPALDING & BROS. INC.
New York, N. Y.
THE SPORTING GOODS DEALER
St. Louis, Mo.
THE SPORTING NEWS
St. Louis, Mo.
SPORTS AGE
New York, N .Y.
STALL & DEAN MFG. CO.
Brockton, Mass.
STOWE-WOODWARD, INC.
Newton Upper Falls, Mass.
H. SWOBODA & SON, INC.
Philadelphia, Pa.

TOBER BASEBALL MFG. CO.
Manchester, Conn.
TUCKER-BRAME ATHLETIC MFG. CO.
Batesville, Miss.

UNION WELT CORP.
Chicago, Ill.
UNITED STATES RUBBER CO.
New York, N. Y.
UNIVERSAL BLEACHER CO.
Champaign, Ill.

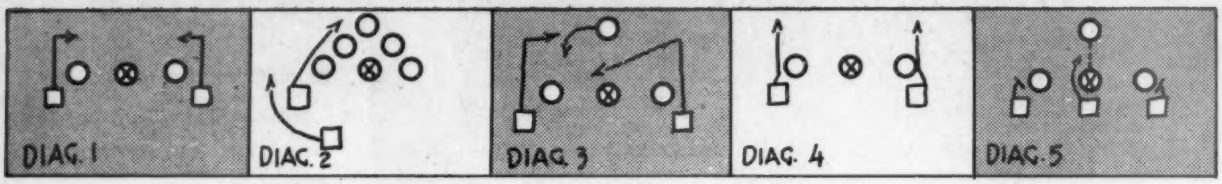
VICTOR SPORTS, INC.
Chicago, Ill.
VIRGINIA RUBATEX
(Div. Great American Industries, Inc.)
Bedford, Va.
W. J. VOIT RUBBER CORP.
Los Angeles, Calif.

H. WAGNER & ADLER CO.
New York, N. Y.
WESTERN AUTO SUPPLY CO.
Kansas City, Mo.
WILSON SPORTING GOODS CO.
Chicago, Ill.

YARRINGTON MILLS CORPORATION
Philadelphia, Pa.
RICHARD YOUNG CO.
Boston, Mass.

C. W. ZUMBIEL CO.
Norwood, Ohio

Besides the above, The Athletic Institute has an associate membership comprised of a considerable number of sporting goods dealers, geographically spread throughout the United States. Space does not allow listing of these dealers individually.



In Six-Man Football

Is Your Team's Defensive Slip Showing?

By ANDREW W. GRIEVE

Athletic Director, Van Etten, New York, Central School

WHAT were the scores of the games played last year? Has the team scored five touchdowns in one game and lost because the other team scored six? What were the average points per game last season? What about the opponents? If the answer to these questions indicates that the team's offensive strength is out of proportion in comparison to its defensive strength then it may be time to do something about it.

Six-man football has been referred to as basketball with tackling. We believe this statement is far from the truth. At least our concept of six-man football does not include a vision of six men running down the field tossing the football about like the veritable *hot potato*. Defense is as much an integral part of six-man football as is offense. Is an equal amount of practice time being spent on both phases of the game?

The majority of boys who come out for football in their freshman year lack the experience and the skills to become outstanding players. As a rule, a freshman phenomenon will not be found more than once every three or four years. When a coach does find such a boy he has no qualms about placing him with the more experienced players. However, it will be the other 90 per cent or so who will be the backbone of a team in two or three years. What should a coach do with them?

It has been our good fortune during the past few years to have at least two coaches and sometimes three. One coach is assigned all those boys who are out for the team for the first time and he has them work together as soon as contact work begins. Therefore, the beginners are not required to work against the more experienced and, in most cases, bigger boys. Boys out for the first time receive an opportunity to prove their ability with boys of their own age and size. After a week or so it is quite simple to select those boys who are capable of moving up to the varsity squad. The boys who are not quite ready will practice together as our junior varsity squad. There have been years when we have not had twelve boys in this classification, but we believe it better to scrimmage these boys even though we are short players rather than move down more experienced boys. If a boy does progress rapidly, then we will move him up to the varsity squad.

Our junior varsity squad uses a very limited number of plays. For the first half of the season these boys are limited to five or six plays. They do, however, learn the plays to perfection. Later on we may add three or four more plays if the boys seem to be ready. These first year men spend an equal amount of time on offense and defense. Of course, the coach in charge of this group spends the greater part of his time on fundamentals.

During the second year out for the team we run into a situation similar to the one we encountered when these boys were out for the first time. Several of the group will have developed skills both offensively and defensively to a degree where they might be considered first string material. What about the others? The boys who may not have progressed as rapidly, for various reasons, are then moved to our second squad which concentrates on defense. The first string offense will run against this squad the greater part of the time. We do not consider this squad the *hamburger* squad which takes its daily beating from the varsity, but rather they are considered as boys whose offensive skill has not reached the point where they can fit into the first team offense.

It is on this squad that our defensive standouts are developed. Many of them are the pluggers who will never shine on offense but they realize if they can learn to tackle, and in the case of the defensive backs, excel in pass defense, they will get into a good share of the games.

Now, what of the first string? The majority of these boys have gone through the process we have just outlined. A year of indoctrination on the junior varsity, a year or two on the second squad, and finally they will move up to the varsity. Naturally, their offensive skills must be extremely well developed. They have had a thorough background in defense and are ready to spend at least half of their practice time on offense. From our second squad we will obtain boys who will play first team defense along with some of our offensive first team. Those boys who are solely first team offense will work against the first team defense and, thus, we have a favorable balance during scrimmage. So much for the development of our defensive squad.

We do not intend to go into the fundamentals of tackling in this article since every coach should be well versed in this fundamental. We are more interested in expounding our theories on how to get the defensive players to the positions where

tney can make the tackle.

Defensive Ends

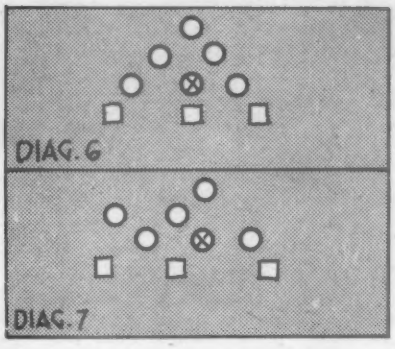
The defensive ends are the main threat against a running attack. With the limited number of defensive players a good halfback, once he has skirted the end, can usually make an appreciable gain. It is more difficult to gain yardage through the middle since this is the point of greatest concentration. On the end sweep two good blocks, one on the end and one on the defensive halfback, can prove disastrous to the defensive team.

Our fundamental concept is that in six-man football the ball-carrier cannot be allowed to get outside the defensive ends. He must be kept inside at all costs. The end must turn him in so that the greatest number of defensive players will have the opportunity of making the tackle.

The position of the defensive ends is on the outside shoulder of the outside offensive man on their side. We do not say the outside shoulder of the end because, in the case of a wingback, he must play off this back's shoulder; otherwise, the defensive line would be undershifted and the end would be vulnerable to a double-team block.

Our ends are taught that their fundamental move is two quick steps in, perpendicular to the line of scrimmage, and then they should pivot on their inside foot in order to face toward the middle. If they are on the long side of the field, they may even slant slightly to that side. Once they are across the line of scrimmage their job is to turn the ball-carrier in. We do not like to have our ends fade without a fight. They are taught to hand fight their blockers and never allow a blocker to get to their bodies. The only time they will run laterally is when the halfback fades deep in an attempt to skirt the end. It is an unpardonable sin for the end to let the ball-carrier get outside him. We would rather have the end miss the tackle as long as he keeps the ball-carrier inside. Diagram 1 shows the fundamental movement of the defensive ends.

If our defensive signal caller thinks there is little chance of a run around one particular end due to the proximity of the sideline, then he may have our defensive end barrel in directly for the tailback. The end is no longer responsible for a play going outside him, although he may break it up before it begins. This maneuver can only be called to the short side when the ball is at the in-



bounds mark on that side of the field. The end knows that the defensive halfback on his side will be moving up to cover the outside (Diagram 2).

On plunges through the line we have found that our ends, even though they take two steps straight ahead, may often be able to slant in quickly and still make the tackle. This is one reason the two steps in must be quick.

When our defensive end sees the play is to be an end run around the opposite end he immediately slants across field, moving back toward the line of scrimmage. As the opposite defensive end forces the runner to turn, this end will be in position to make the tackle (Diagram 3).

If a play develops in one direction and ends up as a reverse, it is the responsibility of the o.e defensive end to warn the other by calling *reverse*. By always taking his two steps straight in the defensive end will rarely be caught out of position.

As the result of scouting or past experience the coach should know whether the opponents have an outstanding passing attack. If our team meets a strong passing attack, the defensive ends know their duties. Their first task is to hit the offensive ends. By lining up on the outside shoulder of the offensive ends they will have a good angle. With both arms extended the defensive end will charge the offensive end, give him a powerful shove, and then take his two quick steps in (Diagram 4).

Of course, the best pass defense in the world is a rushing line. Our ends are taught to charge in at the passer, while holding their hands high, and force him to pass in a hurry. Few high school passers like to *eat* the ball and their hurried passes are often intercepted. A good end will be able to blast the receiver before he goes out and still rush the passer.

Since, in six-man football, there must be a clear pass on every running play, a direct snap indicates a pass or some unorthodox play. When this situation occurs our ends, instead of charging, merely hit and hold their ground. The defensive center will be the only one to charge. In this manner we also protect against the screen pass (Diagram 5).

Defensive Center

The defensive center must be a strong boy. If the defensive ends are effective, they are going to force the runners at him all during the game. Of course, on all line plunges he will be the main cog in the defensive line. Too often six-man coaches will put a big man in this spot merely because of his size. This position requires a boy who is fairly mobile as well as strong. A boy who can charge straight ahead is only doing half the job; he must be able to move quickly so that when the defensive end turns the runner in on a sweep, the defensive center is waiting for him. We look for a boy who possesses strength, mobility, and tackling ability. At times finding a good defensive center is quite a task. The defensive center will not be required to cover as much area as the ends or the defensive backs but he will be on the receiving end of more bumps and bruises since we always attempt to direct all running plays at him.

The center's position is naturally determined by the offensive formation. With a balanced backfield he will play off the center or just slightly on one shoulder or the other (Diagram 6). With a wingback the center will play in the gap on that side (Diagram 7). By varying his charges the defensive center will protect the gap on the weak side.

The center must vary his movements so the offense will not be able to predetermine his path and thus attack through a hole which has been left unguarded. He may charge directly over the offensive center, attempting to push him over (Diagram

(Continued on page 38)

ANDREW GRIEVE has authored numerous articles for us on the six-man game. Last month his article was also on the defensive phase of the game and was entitled "Defense Against Six-Man Spreads." Following competition at Colgate, Villanova, and North Carolina Pre-Flight he began coaching at Wellsburg, New York, moving to Van Etten four years ago.

Part Two

Turf Grass For the Southwest

By BOB DUNNING
Turf Grass Agronomist for Bob Dunning-Jones, Inc., Tulsa, Oklahoma

Bob Dunning is one of the leading authorities on turf for the Southwest region of the country. Last month he devoted his article to the construction of fields, drainage, and the all-important fertilization of new and established fields. This month his article stresses choice of grasses, planting, maintenance of fields, aerification, watering, and weed and insect control.

Choice of Grasses

Several selections of Bermuda grass have been made and are being developed which are superior to common Bermuda grass. At this writing U-3 Bermuda grass is the only one of these selections that has been used quite extensively on athletic fields. No doubt, several of the other selections are superior to the common variety.

The grass chosen for an athletic field should be tough, wear-resistant, vigorous, and have the ability to recover from injury rapidly.

Consideration should be given to the establishment of a small U-3 Bermuda grass nursery for the repair of damaged areas. The nursery should be established on friable medium sandy loam soil. U-3 Bermuda grass makes a dense turf, does not require as frequent mowing as common Bermuda grass, and resists winter kill. Three to six bushels of this material will establish a 1000 to 2000 square foot nursery and plantings from this nursery can be used to enlarge the plot and for the playing field.

Some of the Zoysia grasses, Meyers Z-52 and Z-73, show promise of being superior grasses and they, no doubt, will be used to some extent when the planting material is available.

Planting

A great deal could be written about planting methods. For Bermuda, however, only three will be discussed, topsoil planting, sprigging, and seeding.

The first is just what the name implies — bringing in topsoil containing Bermuda roots or sod. This is an excellent method if soil has to be brought in to provide drainage and the proper soil can be obtained with Bermuda already growing on it. If such is not the case, then planting should be accomplished by sprigging or seeding or both.

Sprigging involves opening furrows about four inches deep on 18 inch centers, dropping Bermuda rhizomes in the furrow, and covering them up. While there is much talk about the difficulty of killing Bermuda grass, it is entirely possible to have a failure by this method if certain simple rules are not followed. These are: Use only fresh sprigs, never allow them to lie in direct sunlight for more than a few minutes. Open and close the furrows in the shortest time possible, not over 20 minutes. Compact the soil thoroughly after planting with a heavy roller. Smooth as required after compaction. The area should be watered as soon as smoothing is complete and it should be soaked to a depth of at least six inches. There should be an abundance of soil moisture at the time of planting.

Seeding is a simple and economical method of planting which can be very successful if proper practices are followed. For best results, the seed bed should be mellow but firm. The soil should be well pulverized to a depth of three to four inches and then smoothed to the finished grade desired. Seed may be planted either by broadcasting or by drilling. If the seed is broadcast, it should be harrowed lightly or cultipacked to cover the seed. Most grass seed should not be covered over one-half inch deep. Immediately following seeding the area should be hand watered, if at all possible, with the nozzle adjusted to a fine spray and held perpendicular so that the water falls like a gentle rain. This method of watering will stick the seed to the soil and will greatly reduce the amount of seed washed out of the soil by subsequent rains or sprinkling. Once an area has been seeded and watered, it should be kept moist at all times but not excessively wet, until the seedlings are thoroughly established.

Seeding rates vary considerably according to the specific problem area but, in general, hulled Bermuda grass seeds should be sown at a minimum rate of 40 pounds per acre and unhulled Bermuda seed at the minimum rate of 50 pounds per acre, and it is not unusual to seed up to 120 pounds of hulled Bermuda grass seed per acre where a dense turf is desired in a short period of time. Hulled seed should be used for plantings made after April 15 and where sprinkling is possible. Unhulled seed should be used for earlier plantings and on areas which cannot be watered.

Seeding is not recommended near the northern limits of Bermuda grass or in the Great Plains areas where watering is not anticipated during the winter because of the danger of dry winter kill (desiccation) nor is seeding alone recommended where the field is to be used the initial year of planting except in southern latitudes of this area and then only when accompanied by extensive forcing including water and fertilizer.

Maintenance of Existing Fields

It will usually be found that there will be some repair work needed after the playing season where top dressing will be necessary. A mixture of medium sandy loam, sharp medium and coarse sand, and 10 to 15 per cent black cultivated peat by volume may be found highly desirable for this purpose. It is necessary to give a word of caution here in regard to fine gravel and large sand particles. Although the mixture should be friable, if coarse particles are predominant at the immediate surface, they will tend to injure or cut off the stems accompanied by the grind. action of cleats.

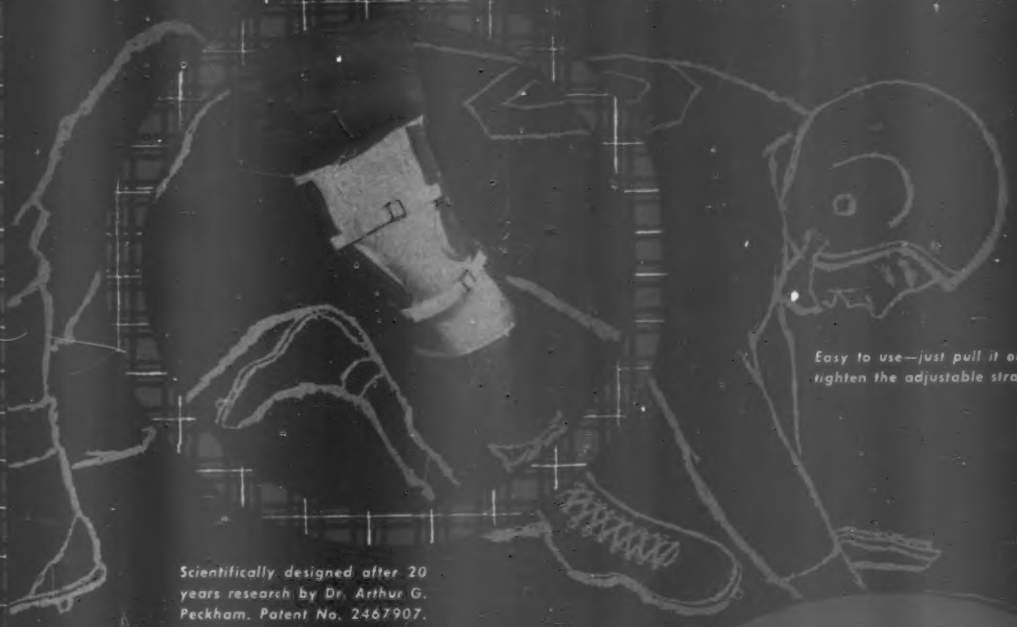
A good mixture would approximate one part medium sandy loam, one part sharp, medium, and coarse sand, and 10 to 15 per cent high grade organic matter such as peat, by volume. This mixture should be used to level and fill depressions and to retain the crown of the field.

Moving the ball in from the sidelines causes excessive wear in the center of the field and unless there is very good turf grass in this area, at the beginning of the season, the area may become thin, worn or devoid of vegetation. If this is the case, the thin and worn areas are more sub-

PECKHAM KNEE BRACE

keeps 'em in the game!

Lightweight brace does what no other knee brace will do—keeps knee joint in place, does not restrict speed or ability to turn, pivot.



Easy to use—just pull it on and tighten the adjustable straps.

Scientifically designed after 20 years research by Dr. Arthur G. Peckham. Patent No. 2467907.

CORRECTIVE. Semilunar cartilage, media and lateral ligaments held in place by cushioned pads, with tension springs.

PROTECTIVE. Prevents twisting of knees, tearing of knee muscles and ligaments and throwing bones out of place.

When straps are tightened on 4 concealed springs, pressure is applied to knee. (This is entirely new principle of construction that really works!)

Sold by distributors of

MacGregor

Sports Equipment

CINCINNATI 32, OHIO

Doctors say that the Peckham Knee Brace is "most revolutionary invention for the treatment and prevention of knee injuries ever devised." Coaches and trainers say "Our players can now perform normally because the Peckham brace does the work of the injured parts." The Peckham Knee Brace is used with equal success in football, basketball, baseball, hockey, tennis, golf, skiing, swimming, bowling or any type of sports activity.

Available for both right or left knees. Small, medium, large, extra large. Team price $7.95 each. Write for descriptive folder.

STRONGER from the START!

(and what a beautiful finish)

that's **HERCULES ACETATE SATIN**

Handsome, colorful Hercules Satin proves its high quality. Its long-wearing stamina has won the preference of coaches everywhere. Be sure to get the strength of HERCULES on your team . . . and get smarter Basketball and Track Uniforms and Warm-up jackets!

Kahnfast QUALITY FABRICS

ARTHUR KAHN CO., INC.

444 Fourth Ave., New York 16, N. Y.

PROOF TESTED

feature for feature...

LEAVITT'S

THE bleacher

THIS PORTABLE LEAVITT STEEL GRANDSTAND will seat your football crowds safely and comfortably for many years.

Make your plans now for the coming football season. Plan now to seat football crowds in SAFETY AND COMFORT on portable STEEL UNDERSTRUCTURE LEAVITT BLEACHERS at an economical cost. One of the most rigid, well-braced stands, LEAVITT'S durable Portable Steel Grandstand has been scientifically designed for portability, fast set-up and take-down.

For all seating requirements, remember LEAVITT for:

PORTABLE STEEL GRANDSTANDS, KNOCKDOWN PORTABLE WOOD BLEACHERS, ADD-A-SEAT PERMANENT STEEL STADIUMS, TELESCOPING BLEACHERS.

BE READY FOR THE COMING SEASON. PLACE YOUR ORDERS NOW FOR YOUR LEAVITT BLEACHERS.

LEAVITT bleacher Co.

URBANA, ILLINOIS

ject to winter kill than areas where there is a dense turf. Winter kill on these worn areas is much more apt to be caused by dry winter kill (desiccation) than by freezing. In bare or thin areas evaporation is much greater than where there is a dense turf. Winter kill may be avoided by preventing these areas from drying out. The field should be checked frequently and watered thoroughly and deeply when necessary.

Another method is to spread a loose mulch of native grass, hay, leaves, cotton burs, or pine needles, etc. The field should be watered thoroughly before mulching. A light top dressing of mellow medium sandy loam may be used to cover exposed roots and stems to protect them but any deep fills on damaged areas should be repaired after Bermuda grass starts to grow in the spring. It is important that a mellow medium sandy loam material be used, higher in clay than silt. A deep covering with soils high in silt and clay should be avoided because they will cause damage by sealing when Bermuda is dormant. Mulch should be removed in the spring when Bermuda shows the first signs of growth. Then the regular improvement program should be initiated. Leveling, smoothing, and replacing the crown of the field should be done immediately after the grass starts to grow in the spring, after fertilizing, and to cover seed where necessary or to help smooth newly sprigged areas.

Established fields with improper structure may be greatly improved by incorporating the above top dressing mixture and by aerifying along with fertilizing. If it is found to be impractical to add soil amendments, aerifying and fertilizing by themselves will improve poor soils.

Consideration should be given to practice fields because they are probably more important than the playing field. The size of the squad will determine the extent of the practice fields. Since teams usually use the practice field four days a week, if at all possible, the field should be divided into four sections in order that each section might be used only once during the week. In any case the practice field should be aerified, fertilized, and watered to develop a good wear-resistant turf for the prevention of injury to the players. Where necessary, the soil can be improved by the addition of soil amendments as pointed out previously.

Maintenance (Mechanical)

Mowing

In the development and mainten-

ance of championship sport turf grass, mowing is more than just keeping the grass and weeds down. It is a maintenance factor that directly affects the type and quality of the turf which is produced. High, irregular mowing results in an erect, open turf. Low, regular mowing results in a turf which will spread laterally into a dense tight turf.

The frequency of mowing is equal in importance to the height of cut in that there should be no sudden change in lowering or raising the height of cut.

In the early spring, if there is an abundance of dead leaves, stems, and stubble, low mowing will help remove this material. Then the grass may be allowed to grow to the height of one and one-half inches or even two inches for a few weeks. However, just as soon as the grass shows a good healthy appearance, and the weather is warm the height of cut should be gradually lowered to three-quarters or one-half inch or even less. In the beginning, this will create lateral growth but the end result when accompanied by adequate fertilization and tillering, which is setting forth new shoots and is promoted by frequent mowing, will be dense upright growing turf grass of many more blades of grass per square inch that will produce a tough wear-resistant cover which will take the maximum in punishment, will be fast, and will provide an ideal footing for cleated shoes, including mud cleats. Higher heights of cut are quite common but, in general, toughness and density go down as the height of cut goes up. Some players and coaches desire a higher cut for play. This can be given without loss of density by keeping the height of cut down to around one-half inch until three or four weeks before the first game. Then the turf should be allowed to attain a one to one and one-quarter inch height but mowing should be regular.

The type of mowing spoken of must be as frequent as required by the grass and should be done two to three times a week and in some cases more often.

In general, it is not necessary to catch grass clippings on athletic fields as far as the turf is concerned. In fact, a certain amount of clippings and the cushion they produce gives resilience to the field and helps retain soil moisture. It is possible, however, for too much of a mat to develop on heavily fertilized turf and, under these conditions, clippings should be removed, particularly during hot weather.

Type of Equipment

Mowing equipment must be chosen as to type to fit the purpose that the turf is to be used for. Large triplex reel type heavy duty power mowers or heavy duty single unit reel type power mowers, or reel type gang mowers are the most suitable for creating the type of cut which will produce the dense turf desired for athletic fields. These mowers have adequate capacity for large acreage mowing without excessive speeds. High speed mowing is undesirable, and in turn will cause corrugation and unevenness of the field.

Aerifying

Probably the most critical problem in maintaining good turf grass on an athletic field is compaction. The pounding given these areas, especially practice fields in wet weather, is something to behold. The soil becomes so compacted over a period of years that it sheds water like a duck's back and any grass that does survive fails to respond to fertilizing and watering the way it should.

There are two solutions to this problem. One is to tear the field up periodically and start over. This is

NISSEN "Hidden Hinge" Streamlines Trampoline*

NISSEN's NEW MODEL 77 introduces the revolutionary endless, smooth UNI-TUBE frame, making the "77" the Greatest of all Flashfolds. You Gain a Larger, Clear Working Surface and Faster, Easier Folding. The "77" was created by Nissen—First Name in Trampolining.

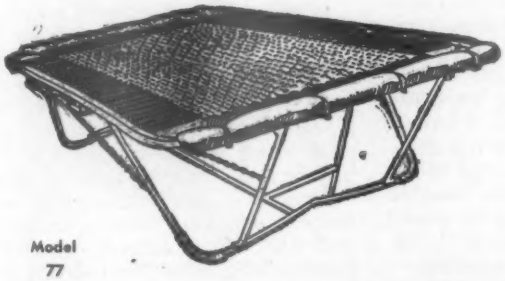
NEW, SMOOTH UNI-TUBE with "Hidden Hinge"

NO MORE PROJECTIONS Eliminates all Upthrust Hinges or Joints

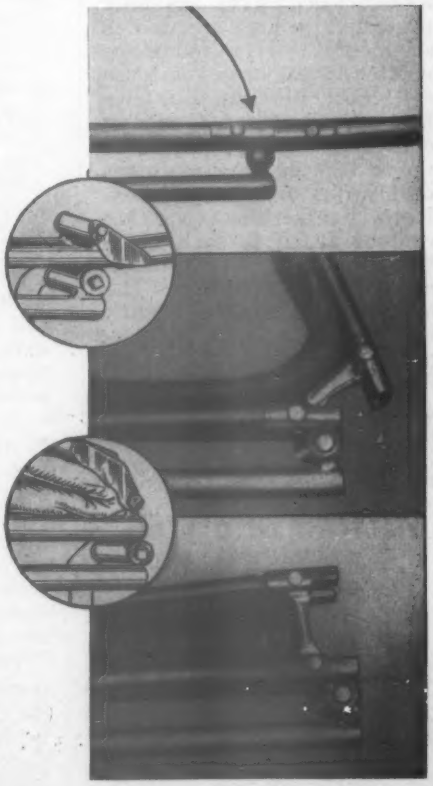
PADS FOLD FLUSH with Frame as "Hidden Hinge" opens

PADS DON'T BUNCH or PINCH

FOLD THE 77 with Pads All in Place



Model 77



Reg. U. S. Pat. Off. *(Write for FREE Literature)*

NISSEN TRAMPOLINE

200 A Avenue, N. W. Cedar Rapids, Iowa

Featherbite
PROTECTIVE MOUTHPIECE

carries

$250.00

INSURANCE AGAINST EACH DENTAL INJURY

SAVE TEETH with the only protective mouthpiece that is so good it carries insurance written by the largest insurer of school athletes. Security Life and Accident Company of Denver will pay dental bills up to $250.00 for treatment of injuries to sound, natural teeth. Featherbite is quickly contour fitted to each tooth for complete protection against dental injury. The only way to protect the teeth is to fit each tooth. Recommended by dentists and preferred by players.

It costs less to outfit the entire team than to replace one tooth.

See your dealer now for Fall Delivery

WILLIAMS-HUFF CO.
Bankers Mortgage Bldg.
HOUSTON, TEXAS

Featherbite
PROTECTIVE MOUTHPIECE

Pat. Pending. Mfd. by Featherlax Corp.
Materials and Workmanship Guaranteed.

not necessary as a very high percentage of the compaction is in the top two surface inches. Furthermore, in tillage operations the turf would be destroyed, losing the cushion and resilience of the turf by disturbing the organic residue consisting of clippings, decaying roots, stems, and the plant itself. The soil would return to its original dense mass in a short period of time, necessitating further tillage operations, and again destroying the turf. In other words, this would become an evil cycle. The other method is to cultivate the soil periodically without destroying the turf. This can be accomplished by an aerifying machine. Making openings into the soil in this manner increases the infiltration rate of water very materially. As much as 80 per cent of the rainfall or applied water may run off the surface of compacted soil. Where irrigation is done it has been found that the amount of water needed can be cut in half after aerifying. With serious water shortages in many parts of the country, it is essential for everyone to make use of natural rainfall and to reduce irrigation as much as possible.

The cultivating action in aerifying has a twofold effect. First, it opens up the soil, letting in air, water, and fertilizer elements. This in itself softens and loosens the soil and allows the inter-exchange of soil and atmospheric gases. The second effect is that the tremendous root development in the holes produced by the aerifying machine, gives additional cushion or resilience to the turf. Over a period of years, this increased root development both laterally and downward, will completely modify a soil, actually changing its structure to small aggregates (crumb structure) as compared to its original dense mass. The addition of gypsum after aerifying machine, gives additional soil does not already have an abundant supply, will also promote an open soil where it is desirable to overcome an impervious condition.

During the first two or three aerifications in the spring three or four passes over the field may be made, up to six or more when required. Cores may be spread as a top dressing and smoothed and leveled by the use of an aeri-linx drag mat. Shallow aerification before seeding in several directions is highly desirable in obtaining a dense stand of seedlings.

The effects of aerifying have been proven on many fields throughout the country. Some of the best known fields in the nation were so compacted that the aerifier units only penetrated about one-half inch the first time over. Due to continued use and the effects cited, the units were penetrating to the full four and one-half inch depth before the end of the summer and the cushion provided by the turf and loosened soil was readily apparent.

Aerify whenever necessary during the growing season. If the soil is not taking water, this is a good sign that aerification is needed to promote maximum penetration and prevent runoff. Aerifying should usually be discontinued after August 15 so aerifier holes will fill with roots and time will be given for loosened sidewalls to move laterally into the aerifier holes.

Watering

The shortage of water has become a problem that is vital to our national welfare. Even in areas where there is an abundance of water the supply, in a good many cases, is critical because of inadequate systems. Therefore, it is of great importance that the supply be conserved and used sensibly and to the best advantage. It is a fact that from one-quarter to one-third of a city's water system is directly connected with watering grass and shrubbery. This means in a city of 100,000 that several million dollars are involved in the system by grass alone.

Frequency

It can be said of turf grasses that they, in most instances, are sprinkled too often and too little, which in turn will cause shallow-rooting and undesirables such as crabgrass.

Watering should be done thoroughly and deeply. In other words, the moisture content of the soil should be brought up to field capacity. This is the only water that a plant can use; water above this amount, gravitational, and hygroscopic water, are not available to the plant and will never be.

Feeding roots of properly maintained Bermuda grass may penetrate the soil to a depth of five to six feet or even more. If this root horizon water capacity is brought to field capacity, a reservoir is created even in sandy soils, which will be adequate to supply the grass for periods up to two to three weeks. Soil texture along with temperature, wind velocity, humidity, and other factors help to govern this process. It goes without saying that with loams and clay loams, etc., the time between irrigation can be extended to longer periods. Then the problem is to create deep roots by proper watering, aerification, and cultural practices. A good rule of

thumb gauge of when to water is to water grass thoroughly and deeply and then to withhold water until the grass shows signs of suffering or wilt, then water again thoroughly and deeply. It may require several waterings to replace the soil moisture content to field capacity without serious waste by runoff, but the column of water throughout the root zone should not be broken. Here again, aerification can play an important part. The primary object is to bring the moisture content to field capacity and then refrain from watering for a period of several days.

Chemical

Weed Control

The first step in weed control is good turf management. A dense, vigorous turf is only slightly susceptible to invasion by weeds as compared to a thin, open turf. If weeds are present, however, the new chemicals available make them easy marks for crabgrass and silver crabgrass.

For most broad-leaved weeds, 2-4D is the chemical to be used. Sodium or amine salts or Formula 40 are preferred due to the fact that they are not so volatile and, therefore, are not likely to damage nearby shrubs. Rates indicated for turf on the containers of reliable companies may be followed without question. Little or no injury to grass occurs from 2-4D when it is properly used.

Crabgrass and silver crabgrass probably create the biggest weed problem for athletic fields. They thrive on light sprinklings and rapidly invade areas of turf that have been thinned by hard use. Then in the fall they either die before the football season or have been blown or washed away. Crabgrass can be controlled by P.M.A.S. (Phenyl mercuric acetate solution.) P.M.A.S. is an excellent material which does not turn Bermuda grass off color when used according to directions. It does have to be applied three to four times to obtain complete control.

P.M.A.S. is available as a 10 per cent solution and it should be applied at the rate of three ounces per 1000 square feet in five to ten gallons of water. Repeat treatments must be made within seven to ten days of the previous treatment or the effect of the prior treatment will be lost. The first application should be made shortly after the crabgrass germinates when it is in the seedling stage.

Silver crabgrass can be controlled with a mixture of P.M.A.S. and 2-4D Formula 40 used at the rate of three ounces of P.M.A.S. and one to one and one-quarter ounces of 2-4D Formula 40 in ten gallons of water per 1000 square feet. Control measures should be started just at the time that crabgrass germinates and before the emergence of silver crabgrass. Three to four applications at seven to ten day intervals are usually sufficient. However, if the field was badly infested the previous year the treatments may be carried on for five to six applications which should give 100 per cent control.

Insect Control

There are eight insects that generally cause damage to turf grass in the Southwest. They are: white grub, wire worm, sod webworm, cut worm, grass termite, chinch bug, ants, and mole crickets. These insects can be controlled with some of the newer hydrocarbon insecticides such at DDT, Chlordane, Aldrin, Dieldrin, and Heptachlor. Aldrin, Dieldrin, and Heptachlor, three of the later developments of these chemicals, seem to be more efficient and require less material for control. It also appears that Aldrin and Dieldrin are less affected by lime and other materials. This does not rule out the use of some of the older chemicals such as lead arsenic for white grub control. Reliable manufacturers recommended

CLEAN OUT CRABGRASS

Easy proven Scotts® way

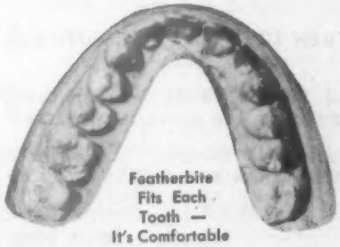
No mixing, just apply SCUTL® as it comes from the bag. 3 or 4 treatments "scuttle" crabgrass without discoloring good grass. Controls fungus, too . . . turf is better all ways! Ask for estimates.

O M Scott & SONS CO Marysville, Ohio

THE DIFFERENCE IS Featherbite PROTECTIVE MOUTHPIECE®

Other Injuries Heal

But Teeth Never Grow Back



Invented By a Dentist

Nationally Approved By School Dentists

See Your Dealer Now For Fall Delivery

Williams-Huff Company

Bankers Mortgage Bldg., Houston, Texas

Pat. Pending, Mfd. by Featherlax Corp.

THE SCHOOL TOWELS PROVED BY THE *ONE REAL*

TEST — PERFORMANCE IN USE!

Superior performance and long service truly measures product value. In McArthur Super-Gym and Super-Turk Gym Towels you get the quality that pays off in longer wear — in better service — in lower cost-per-use. These famous towels, good for 350 - 500 uses and launderings, are the real "buy" in the towel field. And the free McArthur towel repair service is your extra savings. Write today for the economical, informative McArthur School Towel Plan.

GEO. McARTHUR & SONS, INC. BARABOO, WIS.

New York State Representative: Vern Volland, 19 Fairchild Drive, Eggertsville 21, N.Y.

ADELPHI COLLEGE COACHING SCHOOL

Garden City, New York

AUGUST 9-10-11, 1954

STAFF

- KEN LOEFFLER ..... La Salle Col.
  "1954 N.C.A.A. CHAMPS"
- J. BIRNEY CRUM ..... Muhlenberg
  "FORMER DEAN OF PENNA. H. S. COACHES"
- JOHNNY BACH ..... Fordham
  "METROPOLITAN REPRESENTATIVE N.C.A.A."
- ELMER McCALL ..... Central H. S. South Bend
  "1953 INDIANA STATE CHAMPS"
- DANNY LYNCH
  St. Francis College, Brooklyn
  "1954 N.I.T. PARTICIPANT"

TUITION—$15.00 (includes room)

For complete information write:

John E. Sipos, Simpson H. S., Huntington, N. Y.
or
George Faherty, Adelphi College, Garden City, N. Y.

22nd Annual

TEXAS COACHING SCHOOL

Sponsored by the Texas High School Coaches Association

DALLAS, TEXAS — AUG. 9-14

—FOOTBALL
- "RED" SANDERS ..... U.C.L.A.
- BOBBY DODD ..... Georgia Tech
- FRANK BROYLES ..... Georgia Tech
- RAY GRAVES ..... Georgia Tech
- JESS NEELY ..... Rice
- JOE DAVIS ..... Rice
- CECIL GRIGG ..... Rice

—BASKETBALL
- EDDIE HICKEY ..... St. Louis
- "DUDEY" MOORE ..... Duquesne

—TRACK
- FRANK ANDERSON ..... Texas A. & M.

—BASEBALL
- ALEX HOOKS ..... S.M.U.

—TRAINING
- WAYNE RUDY ..... S.M.U.

** ALL-STAR FOOTBALL GAME *
Cotton Bowl, Aug. 13

* ALL-STAR BASKETBALL GAME *
DAL-Hi gym, Aug. 13

For information write:
L. W. McCONACHIE
2901 Copper St. El Paso, Texas

rates should be followed.

Disease Control

Bermuda grass is not usually affected extensively by disease that does severe damage to turf grasses; consequently, recommendations for disease control are withheld. There are many turf diseases that require a choice of fungicides. Any reliable turf and equipment house or state college can help in the identification of disease and make specific recommendations.

Cross-Country

(Continued from page 19)

quarter mile give the spectators the type of thrill that will keep them coming to meets.

In college the first two loops should institute the freshman run, approximately 2.6 miles, and the third loop should complete the varsity run to a total of 4.4 plus miles.

Third, added spectator interest can be achieved by the use of a mimeographed program that contains: a map of the course giving the distance, markings, and topography of terrain, course records at the end of each loop, and items of interest about the local team members and the visiting team. Also, each runner's number should be printed in the program. The opportunity given the spectators to follow the run, when the runners are on the course, does much to retain their interest during this period.

Fourth, scoring and timing devices at the end of each loop will prove an added boon to spectator interest. A large electric clock (Illustration 1) which starts at the beginning of the race and is equipped with a painted face designating loop record times and the course record keeps the spectators well informed on the progress of the race in terms of time. Without this clock, the manager can keep the crowd informed by using his stop watch. A large scoreboard (Illustration 2) of simple construction which holds five large cards under the name of each school will show the positions of the first five men of each school after each loop is finished. This unofficial part-race score will do much to retain the interest of the spectator as each segment of the race is completed. The scoreboard will also be available to post the positions of the finishers when the official compilation is ready.

A fifth and final point is in the form of crowd insurance and entertainment. Some schools have insured themselves a crowd by having the meet finish between the halves of the football game and to some extent this has been successful. The crowd sees

the finish, and if given enough instruction, will understand what is going on; however, the day has come when the halves of the game are now taken up entirely by the band, baton twirlers, and singing.

If a cross country coach wants to use the football crowd, he should have the meet finish on the field before the game starts. If he wants to gather his own crowd other than on the day of a football game, he should convince the band and baton twirler that a good time for them to practice would be in front of his crowd (perhaps the band would draw the crowd) before the meet begins, while the team is out during each loop, and after the meet is over. Thus, prestige will be added to the sport of cross country by having the band at the meets and at the same time the band will be given an opportunity to perform or practice in front of a live audience.

Soccer

(Continued from page 13)

chase shoes and shinguards to get the club started. It may also agree to pay officials. The varsity athletic budget might help out by supplying old football jerseys, shorts, socks, long stockings, and sweat suits. For transportation, either the athletic department or the college may have a bus or car available for use, at least for some of the trips.

The soccer club may be given a small budget of perhaps $100 or $200. Obviously, this money has to be carefully and judiciously used. A first charge on this budget should be for shoes and shinguards to provide adequate protection for the players and avoid needless injury. A second charge, in our opinion, should be to pay for competent officials for games. Good officiating will help immea-

$45 to $225... there's an OCEAN POOL DIVING BOARD for you at YOUR price!

20 different boards to fit YOUR needs

WATER SPRITE starts at $45
Most popular board ever built. Low in price, high grade board of Douglas Fir lumber. Quality and dependable service built in. Tips reinforced with cold rolled steel "blind" stitch bolts. At no extra cost, board is finished with new Polyrestys SaniTread, eliminating need for Cocoa Matting. Made in lengths of 8' to 16'.

EUREKA LAMINATED FIBERGLAS® DIVING BOARD starts at $135
Supreme achievement in diving boards
Improved flexibility and "added" lift.
Great tensile strength with FIBERGLAS... sunproof, waterproof.
Wood core of finest Douglas Fir lumber laminated with strongest glue.
Face of board finished with slip preventative abrasive imbedded in plastic resin... no matting needed.
Easy to keep clean, sanitary.
Three year warranty.
No Eureka Laminated FIBERGLAS diving board has ever broken!

OCEAN POOL SUPPLY CO.
866 Sixth Avenue, New York 1, N. Y.
the complete headquarters for swim apparel and accessories since 1883
FREE... send for catalog D of complete line.

THE GRISWOLD
TRAMPOLINE BED
World's finest woven webbing bed
Custom made for any trampoline
Send for Descriptive Circular
TRAMPOLINE TUMBLING
By LARRY GRISWOLD
Teach safely and progressively
Learn with confidence
A complete and comprehensive manual for teacher and student with a special chapter on body mechanics
Four-color illustrations
Spot Index, 120 pages
Attractively bound $3.75
LARRY GRISWOLD
1812 Second Ave., S. E.
Cedar Rapids Iowa

YOU'RE SAFE! WITH GLASS-GARD
EYE GLASS HOLDER
FOR BASEBALL - GOLF TENNIS - TRACK
SEE YOUR SPORTS DEALER
SEND $1.00 FOR TRIAL GLASS-GARD
(Slightly Higher in Canada)
SERON MFG. CO.
BARBER BLDG.
JOLIET, ILL.
PAT. PEND.-U.S.A.-CANADA

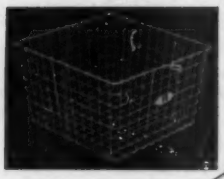
surably toward making the games look like a worthy intercollegiate sport deserving varsity status. College soccer cannot afford to have the dirty play, hard feelings, and recriminations which too often accompany games officiated by students or others donating their services. The money paid to competent officials is a solid investment which will yield many dividends. A third charge on the soccer budget should be for transportation. Students who use their own cars should receive some compensation, particularly on longer trips. On shorter trips, the riders in each car can contribute 25 or 50 cents to help pay for gas and oil.

Every effort should be made to conduct intercollegiate games in a dignified, orderly fashion. A paid, capable official who will keep the game under control is the first step. Benches for the players and seats for the spectators are also essential. The common practice of allowing spectators to line the sides or ends of the field is not conductive to an orderly game. All too often these spectators begin shouting uncomplimentary and personal remarks to the players, and they also encroach on the field of play. The sidelines should be cleared. Players should be on or in front of the benches assigned them, and spectators in temporary bleachers or stands should be back from the field. Then the linesmen can do their job without interference and players do not have to push through spectators to take kicks from touch. If these few suggestions are followed, the contest will resemble a varsity game instead of a fraternity touch football match. Additional desirable details include a table and chairs for the timekeeper and scorers, goal nets, corner flags, and a trainer.

The foregoing suggestions for soccer clubs should be helpful in the transition from club to varsity status. If the particular college situation indicates great difficulty in establishing soccer as a varsity sport on an equal budget basis with other varsity sports, then soccer might be recognized as a varsity sport but on a limited budget. The money allotted to soccer would be used primarily for shoes and shinguards, officiating, transportation, and letter and sweater awards. Coaching expenses can be cut to a minimum by using a graduate assistant. Uniforms may be bor-

★ ★ ★
AMERICAN Approved
Extra Heavy Duty
Dressing Room
EQUIPMENT
for lifetime durability

AMERICAN APPROVED HEAVY DUTY STEEL RACKS
Perfect storage for gym baskets. Supplied with padlock hasps . . . and number plates numbered to your order.


AMERICAN APPROVED GYM BASKETS with padlock hasp and number plate

ALL-AMERICAN HEAVY DUTY UNIFORM HANGER
Faster, more thorough drying—accommodates all of a player's basketball, baseball or football gear. Hot dipped tinned finish protects against rust. Metal number plates to order.

Write for Literature

AMERICAN
PLAYGROUND DEVICE CO.
ANDERSON, INDIANA, U. S. A.
WORLD'S LARGEST MANUFACTURERS OF FINE PARK, PICNIC, PLAYGROUND, SWIMMING POOL AND DRESSING ROOM EQUIPMENT

Revolutionary Safety Engineered
Gym Master
TRAMPOLIN
- No Hazardous Understructure
- Folds Quicker, More Compactly on Wheels
- Nylon Web Bed for Longer Lasting Superior Performance
- Large Size

Featuring
COVERALL PADS
- Covers Springs and Frame
- Unique Feature permits no flopping or contact with springs and bed

Pads and Parts Available for any Trampolin
FREE LITERATURE
FENNER-HAMILTON CO.
350 So. Harrison St.
DENVER, COLORADO
Phone FLorida 5-6472

OCEAN CITY
BASKETBALL CLINIC
Sponsored by the Exchange Club of Ocean City, New Jersey
June 11-12, 1954
Ocean City High School Gym
•
KEN LOEFFLER
LaSalle College
Will lead the discussion on "Advanced Coaching Techniques Offense and Defense"
•
Tuition $10.00
For further information write:
FRED HOWELL
Ocean City H.S. Ocean City, N. J.

OUT IN FRONT

FAIR PLAY FB-50 FOOTBALL SCOREBOARD
For years Fair Play has been *OUT IN FRONT* with the finest features in scoreboard equipment. Controls are handled by simple, fast working telephone dials. The FB-50 is big, attractive and dependable.

FAIR PLAY FF-15
ALL-PURPOSE
SCOREBOARD
Whether for Football, Basketball, Baseball or any other athletic event, there's a Fair Play Scoreboard to fit your need.

FAIR PLAY MFG. CO.
73 Thayer St., Des Moines, Iowa

rowed from other sports such as jerseys from football, shorts from basketball or track, and long stockings from baseball.

T Quarterback

(Continued from page 11)

terback will want to place plenty of weight on his left foot to permit a good push-off. He literally throws himself out of his original position. At the completion of the pivot the toe of his left foot is pointed toward the spot to which the fullback has moved. The quarterback must make certain that his pivot foot is back far enough to permit adequate space for pulling guards to pass between him and the line of scrimmage. Just as the pivot is completed, the quarterback moves his pivot foot toward the flow of the play by dragging it about 10 inches. The quarterback must work hard on these movements. During all of these seemingly complicated movements fine body balance must be maintained. We are swinging that football hard and working on the theory that a defense will come toward it.

Constant coaching is required to impress upon the quarterback the necessity of keeping his center of gravity low on these pivots. Of course, the movements and fakes of the three deep backs aid or hamper the potential deception in these fine series. The three deep backs must be taught to be real disciples of deception.

For a few plays in these series there are a few talented quarterbacks who may be able to develop double spins. Bob Waterfield and Eddie LeBaron have been notable examples.

The movements and fakes of the quarterback in *the fullback trap series* are identical with those he uses in the halfback trap series. The fullback trap series serves as an excellent change-of-pace maneuver to utilize the halfbacks in the ball-carrying while faking more to the fullback. Series L, M, and N show some maneuvers in this series.

We are omitting the direct snap series as we plan to discuss it in a later article.

We feel that any well-rounded T formation attack is missing a large part of T offense if it does not make use of *the fullback draw play* and other plays faking this sound maneuver. This attack fits well with the use of any *drop back* passing maneuvers. Our favorite backfield movement for *the fullback draw play* is shown in Series O.

Dear Coach:

You can't operate your home without bread, salt, sugar, eggs and coffee. Neither can you conduct an efficient athletic program without the tools of the trade.

CRAMER PRODUCTS are just as much a part of your program as the football, the basketball, baseball or baton. You reach for them every day - just as you do the salt.

CRAMER PRODUCTS are as standard as Scotch Tape, Kleenex, Quaker Oats or Coca Cola. Their shipment-after-shipment uniformity insures satisfactory results.

Don't let that favorite sporting goods salesman get away without an order for CRAMER PRODUCTS, the next time he calls on you.

Cramers of Gardner, Kansas

PUBLISHER "THE FIRST AIDER"

Mail This for Forrest England's Newest Book on the "T" Formation

Just check your items and mail

☐ "T" Formation from A to Z $4.50 ☐ Pigskin Tactics $3.85
☐ How to Scout Football ..... 4.50 ☐ Revolutionary Football 2.00
☐ Charge Athletic Association ☐ Charge Library
☐ Charge School ☐ Cash Enclosed ☐ Send C.O.D.

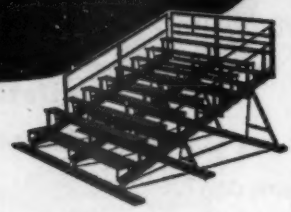
Satisfaction Guaranteed or your Money Back

School Aid Company

Your Specialist in Coaching Aids

200-A Chester Avenue Danville, Illinois

HUSSEY
PORTABLE
GRANDSTAND



Easy and Quick To Erect and Take Down

This new Hussey Model 8 Grandstand gives you all the advantages and comfort of modern grandstand construction, yet incorporates the exclusive patented features that have made Hussey portable seating the leader in the field.

Hussey stands meet every safety requirement, last indefinitely, can be erected or taken down faster and easier and stored in a smaller space than any other stand on the market. No skilled help is needed. The same stand can be used indoors and out, is available in sections and tiers to meet your needs, and is low in cost. Hussey Portables will solve your seating problems.

Hussey Installations at Pettengill Park, Auburn, Me., and Univ. of N. H., Durham, N. H.

FREE CATALOGS ON REQUEST

Write Today

Ironworkers HUSSEY Since 1835

HUSSEY MFG. CO., INC.

544 Railroad Ave., N. Berwick, Maine

Also manufacturers of — "Roll-Out" Gym Seats, Diving Boards, Floats, Piers, Water Sports Equipment, Flag Poles, and Miscellaneous Iron.

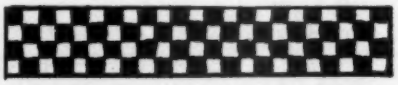
Athlete's Uniform

(Continued from page 14)

There is little fundamental difference between the earliest known hand looms and the machine looms found in the up-to-date factories. Warp threads are those that go up and down. The weft thread (sometimes called filler or woof) is carried across from selvage to selvage (edge to edge) by a shuttle. The weft or filler threads are pushed down tightly against each other by a kind of comb arrangement. All weaves are variations of this simple process.

Plain Weave

In this weave the weft thread crosses the top of alternate warp



threads. The structural design of this weave is checkerboard. Plain weaves when woven tightly are firm and strong and can be cleaned or laundered easily because of their flat surfaces.

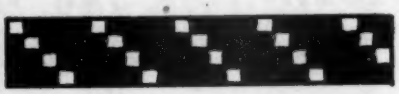
Twill Weave

In the twill weave each warp thread runs over two and under one weft

thread. A diagonal effect such as is found in whipcord is produced. These are very strong weaves.

Satin Weave

In this type the warp thread skips four to seven wefts. The weft threads



are often finer than the warp and are practically invisible, so that the long floats of the warp produce a smooth shiny surface. A variation is seen in sateen, made from mercerized cotton, in which the weft threads dominate the face of the fabric. Either variation of this weave is attractive but due to the floats, it is not a good wearing weave because the floats have a tendency to catch and weaken the fabric. This weave is used in football pants, warm-up jackets, and basketball pants.

Color Fastness

Color fastness is a headache to coaches. It depends upon the properties of the dyestuffs used and the method employed in combining and applying them.

Stock-dyeing is a process of dipping the raw fibers in a vat of dye before the thread is spun. Yarn-dyeing consists of dipping the threads before weaving. Piece-dyeing is the least satisfactory method. It consists of dipping the whole fabric after weaving.

Although these dyeing processes are all done before the coach sees the fabric, he should ask his salesman which of the processes was used.

Leathers Used in Athletic Shoes

The two best qualities of leather for athletic footwear are kangaroo and cowhide. Kangaroo has been successfully tanned during the last fifty years. Kangaroo skins, are imported from Australia, and are extremely strong and very scuff-resistant. Cowhide is used more often because of its availability and lower cost. The center back section of the cow produces the best leather. Here the animal develops a tough thick hide to protect himself from snow, wind, and rain. This section of leather is known as the bend and it gives the firmest, most durable quality sole leather for athletic shoes. Heavy hides are often split into as many as four layers. The coach must realize that the top layer which contains the grain (known as full grain) is the strongest and although more expensive will outwear many times the lower splits.

Construction of Athletic Shoes

There are many invisible features in the construction of shoes. A jersey or a pair of football pants which do not fit may be uncomfortable but they will not cause pain.

In athletics where the individual's performance is of prime importance, it is imperative that there be no painful feet. Goodyear welt is generally considered the best construction for all-around service and comfort because it is built around a leather insole. This shoe requires no sock lining because no stitches or seams are visible on the inside of the shoe. The welt is attached to the insole by a thread which is stitched with a curved

needle. It is also important that the shoe have a leather counter. A fiber type counter breaks down under wet conditions and cannot be restored as can the leather one.

The wise coach will remember these recommendations when purchasing shoes: 1. Buy the best shoe that the budget will allow. 2. Get Goodyear welt construction and leather insoles. 3. Watch for long-wearing leather in the uppers. 4. Check the type of thread used for stitching. Nylon will be strongest and wear the longest.

Punters

(Continued from page 15)

hands simultaneously and allow the ball to drop. The coach will know by the bounce if the fall is correct. If it hits on either the front point or the rear point, it will bound away. If the fall is correct, it will come back up into the player's hands. We believe this is the true secret of punting. Laying the ball on the instep is an art that is only the result of long practice.

Our next lesson will deal with locking the kicking knee and the leg snap that will propel the ball.

We have the punter assume the kicker's stance (Illustration 1). His first step will be with his right foot to regain the natural step (Illustration 2). His next step is with his left foot. As is shown in Illustration 3, the step is the normal step that is taken when walking naturally. As the player's left heel hits the floor he should instinctively cock his right foot, point his toes downward, lock his knee, and swing upward into the ball. As he drops the ball, his eyes must remain fixed on it. His body is moving forward and upward — not backward.

Form is of the utmost importance. If a player's form is good, distance will come. He should not arch his back or leave the ground. A punter should maintain balance even after the kick. The point at which the instep meets the ball will vary. We like the punt to be about 18 inches off the ground. Naturally if a soft lofting ball is desired, the player should hold it above his waist and meet it late.

Now the coach is ready to go outside and put these practice patterns to work. He must set up a daily schedule to which the punters should try to adhere.

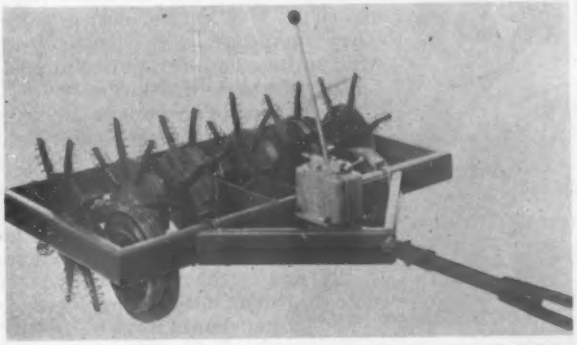
The schedule we use is something on this order: 1. Loosen up with stretching calisthenics for several min-

good footing in bad weather where the AERIFIER* is used

Thin turf and hard ground make a poor field. Add rain and it becomes a slippery, muddy mess. The Aerifier keeps soil porous so water drains quickly away from the surface. "Cultivating action" encourages deep-rooted turf that does not tear or slide out from underfoot. Makes a fast, firm turf in any kind of weather. Turf needs proper care through the summer. Write today for information about the Aerifier,

*Reg. U.S. Pat. Off. Pat. No. 2,580,236

West Point Products Corp. West Point, Pa.



Good turf gives firm footing — cushions falls

Meet the Nation's Top Coaches at the Ninth ANNUAL COACHING SCHOOL
VIRGINIA STATE COLLEGE
JULY 6-9, 1954

FOOTBALL STAFF

Split T Formation
JIM TATUM
Univ. of Maryland

1953 College "Coach of the Year"
Coach of the country's No. 1 Team

CHUCK MATHER
Univ. of Kansas
1953 H. S. Football "Coach of the Year"
Winner of 6 consecutive Class A Ohio State High School Football Championships

BASKETBALL STAFF

"DUDEY" MOORE
Duquesne University
1953-54 College Basketball "Coach of the Year"

Keep abreast of the modern trends in football and basketball. Study and relax on the campus of Virginia State College, Petersburg, Virginia
TUITION—$15.00. Room and Board—$4.00 per day
For complete details write to:
S. R. "Sal" HALL, Director

Upstate New York Basketball Coaching School
JULY 1, 2, 3 — DELHI, N. Y.
"Dudey" Moore—Duquesne
Coach of the Year
"Taps" Gallagher—Niagara
Perennial Upstate N. Y. Power
Hal Bradley—Duke
Southern Conference Winners
TUITION: $15 for one man
$25 for two men from same school
EDWARD J. SHALKEY, Dir.
Delaware Academy, Delhi, N. Y.

COACHES, ATHLETIC DIRECTORS
Prepare NOW
for next season

- Give your teams a psychological lift through the use of locker room slogans.
- These slogans are suggestive and impressive. They will accomplish wonders for you.
- A team with the proper mental attitude is difficult to defeat. These slogans will help attain this proper mental attitude.

25 slogans on 5" x 12" cardboard in assorted colors—$1.00. Order from
ATHLETIC ENTERPRISES
228 N. Warren St. Big Rapids, Mich.

NURRE
All-Glass
BANKS

...official for high school, college, or professional play!

● It's official! All Nurre Glass Banks are fully approved by the National Basketball Committee... not to mention enthusiastic players, coaches, and spectators!

Nurre Banks are guaranteed against breakage in normal use. And here's one for the record books: in 30 years, no Nurre Bank has ever been broken in play!

In addition to the rectangular and fan-shaped banks shown here, Nurre offers a low-cost, rectangular model with 12″ wood panel extending across bottom.

Order goals from Nurre, too. Specify type of bank—all-glass or with wood strip.

Get full information. Send for *free*, illustrated booklet today. Write:

THE NURRE COMPANIES, INC.

Dept. AJ-93, Bloomington, Ind.

Makers of Glass Banks since 1924

utes. 2. Walk through the kicking routine several times without the ball. 3. The punter should place himself 9 to 10 yards behind the center and have him send back about a half dozen passes. 4. Signal the safety men. All of our backs are used in this drill. The punter is now ready to kick. 5. Begin with a short controlled kick. The safety men should be 20 yards downfield. 6. After about 10 kicks the safety should be moved back to about 40 yards. 7. At the end of 10 minutes, several linemen should be called to hurry the kicker. 8. Have the player punt four or five times under pressure and then call a halt.

The punters should be reminded never to kick when they are tired, and never kick after a hard practice. They should not be excused from wind sprints; however, pulled muscles can play havoc with a kicker.

It is advisable to set two linemen 10 yards away from the center, one on either side, and have them rush the punter in order to create game situations. The punter must be cautioned to keep his eyes fixed on the ball at all times. As confidence comes to the punter, he will begin to get more and more snap into his kick.

The punter should work on control kicking and placing the ball away from the safety man or out of bounds. We instruct a punter to use his left leg as the guide (Illustration 4). The direction of the flight of the ball will depend on his left toe. Naturally, his right foot must remain parallel to his left. Nothing else changes.

The height of the kick will depend on where the ball meets the arch of the punter's kicking foot. If the contact is close to the ground, a low driving kick is the result. We like this on a windy day, when the wind is against us. If contact is made above 24 inches off the ground, a high floating kick can be expected, resulting in time for coverage.

If the daily schedule is followed and mistakes are corrected, the rewards will be gratifying. If the punters seem discouraged when placed under pressure for the first few practices, the coach should not give up. As confidence is regained, the punter will get the ball away smoothly and in time.

One of the most frequent faults we find is that punters take unnecesary steps and often slide the ball off the side of the instep. A little game can be played with a punter by running a chalk mark right down his shoe laces. Place a chalk mark from one end of the ball to the other (opposite the laces). He can soon see if the two lines are not parallel. The chalk on his toe will powder a line on the ball. If the lines are parallel, he is dropping the ball correctly. If not, the lines will tell the coach how the ball is falling and the correction can be made.

Remember that *practice makes perfect* and when a punter kicks *he walks through the ball.*

Six-Man

(Continued from page 25)

8). He may slant through one side or the other of the offensive center but he should make certain he can slide in the opposite direction if the play happens to go that way (Diagram 9). He can hold at the line of scrimmage and slide either way once the play develops (Diagram 10). He may drop back, but only when the offensive play is almost certain to be a pass (Diagram 11).

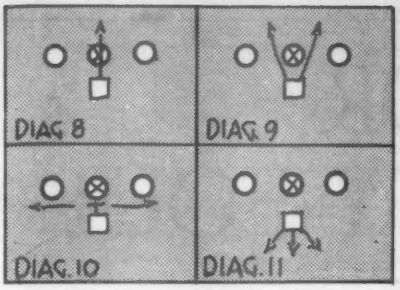
The defensive center is the keystone of our defense. He will probably have the opportunity to make 50 per cent or more of the tackles on running plays. Obviously, this boy cannot afford to miss many.

Defensive Backs

The defensive backs, no matter what defensive alignment is used, must be sure tacklers and strong against passes.

In the 3-2-1 defense the halfbacks line up five yards back and off the inside foot of the defensive ends. The safety man should be 10 yards back, directly behind the defensive center. In the 3-1-2 the short back plays about four yards back, while the halfbacks are eight yards deep. In the 4-2 the backs are about five yards back, off the inside foot of the defensive ends.

Probably the greatest threat the backs must face is the running optional pass. We have found many boys who are extremely anxious to come up fast and make the tackle. This is a fine trait but we always warn our backs to stand pat until they are sure it is a run. We would much rather have them make the tackle after a five yard gain than have a pass completed over their heads. The backs are taught to take a quick look at the offensive ends who will generally tip them off as to what will develop. Most receivers will look at the passer immediately after they are clear of the line of scrimmage, when a pass is forthcoming. Usually, they do not look back if their assignment is to block the back on a run.



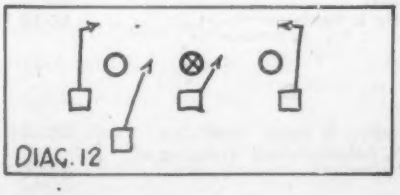
Of course, the prime rule of pass defense for defensive backs is never to permit the receiver to get behind them. By studying the pass receivers and their movements the backs should be able to determine the pattern which they tend to follow and be ready for any eventuality. Scouting will be of great assistance. If the defensive backs are forewarned, they are forearmed.

Defensive Variations

Our defensive quarterback may vary the movements of each individual player and change our basic formation at any time he deems necessary. When the situation indicates a plunge for short yardage he may shoot a back through the gap (Diagram 12). He may barrel an end in when the ball is close to the sideline or he may drop the center when it seems as if a pass is imminent. During practice sessions we call out offensive situations and the defense must adjust accordingly. It is much better to make mistakes in practice than in a game.

All in all, we believe our defense must be as well organized as our offense. Many boys who come out for football have developed their offensive skills to a much greater degree than their defensive skills and it is our task to develop their defensive skills as well as perfect their offensive skills.

If a coach is losing games because of his defense, he should do something about it. It should be remembered that the opponents usually have the ball as often as his team does, so why not stop them? It is not necessary to give up a touchdown to get the ball.



New!!
SAND KNIT
FOOTBALL JERSEYS
As Seen on TV in the Rose Bowl Game!
Colorful! Attractive!
Style AG Jersey styled with self material insert at top of sleeves. Can be had with 3/4" Ribett braid through center of insert for added color. Outstanding design in school color combinations that have met with instant success everywhere. Jerseys are available in a complete choice of fabrics.
Write for Complete Information
FREE! Newest 1954 Football Clothing Catalog available on request.
SAND KNITTING MILLS CORP.
BERLIN, WISCONSIN

THE MODERN WAY TO SCORE .....
Naden ELECTRIC SCOREBOARDS
FOOTBALL
Illustrated above is the Naden No. N-400-D with Dial Timer and "Instant-Vue" numerals. Naden makes a fully guaranteed, simple to operate, easy to maintain scoreboard for every need. Write for free Catalog No. 22—Football; No. 23—Basketball; No. 25—Baseball.
NADEN AND SONS WEBSTER CITY IOWA

10th Annual
NEW YORK STATE
Coaching School
(Sponsored by N.Y.S.P.H.S.A.A.)
Rennselaer Polytechnic Inst.
TROY, N. Y. Aug. 23 thru 26
FOOTBALL
"DUFFY" DAUGHERTY ..... Michigan State
STEVE OWEN ..... N. Y. Giants
BASKETBALL
HARRY COMBES ..... Illinois
New York High School Coach
SOCCER
GLENN WARNER ..... Navy
BASEBALL
FRAN O'ROURKE ..... Yankees
TRACK
Also: Football rules interpretation, sports films, panel discussions, and training.
For further information write:
PHILIP J. HAMMES, Director
Proctor High School Utica, N. Y.

INDEX FOR VOLUME THIRTY-FOUR

September 1953 through June 1954

Explanation — The second column of numbers refers to the month, for example: September is No. 1, January No. 5, and June No. 10. The third column of numbers refers to the page on which the article starts. Articles are indexed according to subject and author's name.

A

Anderson, Forrest, It's the Change-Up That Counts .34- 4- 6
Ashworth, George, Single Wing Running Attack 34- 1- 9
Aurand, Rex, Bowling in Junior High School 34- 3-13
Auwater, T. K., Improve Your Rebounding 34- 3-24

B

Baker, Roy T., Only the Ball Can Score! 34- 4-14
Baley, James A., Advanced Singles Balancing 34- 7-14
Baley, James A., Elementary Singles Balancing 34- 5-34
Baley, James A., Intermediate Singles Balancing 34- 6-16
Baseball: Games, Make the Most of the 34- 8-26
Charles F. Stubblefield
Baseball: Infield and Outfield Defense 34- 6-18
Charles F. Stubblefield
Baseball: Offensive Baseball in the High School 34- 7- 6
Charles F. Stubblefield
Baseball: Pitching Control 34- 6-28
James Smilgoff
Baseball: Play Situations 34- 7-12
Lee P. Eilbracht
Baseball: 2 and 1 Baseball 34- 7-16
James Smilgoff
Basketball: Ball Can Score! Only the 34- 4-14
Roy T. Baker
Basketball: Better Fundamentals, Drills for 34- 2-34
Hugh Greer and Stan Ward
Basketball: Change-Up That Counts, It's the 34- 4- 6
Forrest Anderson
Basketball: Defensive Footwork, Analysis of 34- 4-20
John Patrick
Basketball: Fast Break Drills 34- 2-20
Bud Burger
Basketball: Free Throws—Frozen Assets or Redeemable Dividends? 34- 3- 9
Richard B. Morland
Basketball: Inside Weave, The 34- 3-17
Andrew W. Grieve
Basketball: Man-for-Man Defense, Composite Offense Against a 34- 3-22
Bob C. Watson
Basketball: Man-for-Man Scissors, A Simple 34- 3-20
Gordon Van Buren
Basketball: Man-for-Man, Teaching the 34- 4-28
John C. Foley
Basketball: Offense, Playing the 34- 3-30
Edwin J. Beckman
Basketball: One Hand Free Throw 34- 3-11
Don Schlundt and Cliff Wells
Basketball: 1-3-1, Penetrating the Zone With the ...34- 3-26
Hugh Greer and Stan Ward
Basketball: Pressing Defense, The 34- 3-28
Bill Walters
Basketball: Plus-Minus Chart, The 34- 5-32
Bob C. Watson
Basketball: Position Shooting 34- 1-36
W. D. Pegram
Basketball: Rebounding, Improve Your 34- 3-24
T. K. Auwater
Basketball: Shooting, Concentration in 34- 4-22
John A. Pfitsch
Basketball: Shooting Illustrated 34- 3- 6
Clarence "Bevo" Francis and Newton Oliver
Basketball: Shotgetters, Approved 34- 4-16
Jack Nagle
Basketball: Stunting Defenses 34- 4- 4
Aubrey R. Bonham
Basketball: Tall Pivot, A Defense Against the 34- 4-13
P. R. Wisher
Basketball: Team Efficiency, Analysis of 34- 3-42
Fred Humphrey
Basketball: Tournaments, 1954 State 34- 9-42
Basketball: Triple Post 34- 3-14
Marsh Potter
Basketball: Underhand Free Throw 34- 3-10
Eddie King and Bunny Levitt
Basketball: Underhand Throw? Why the 34- 3-12
John W. Bunn
Basketball: Zoned Basketball 34- 4-26
Mortimer H. Morris
Beckman, Edwin J., Playing the Offense 34- 3-30
Bennett, Bruce L., Soccer an Intercollegiate Sport ..34-10-12
Bennett, Lyle, Laminated Broad Jump Board 34- 8-44
Boeck, Al, Jr., ABC's of Sports Publicity 34- 3-32
Bonham, Aubrey R., Stunting Defenses 34- 4- 4
Books, New 34- 1-48
Books, New 34- 2-40
Books, New 34- 3-36
Books, New 34- 5-40
Books, New 34- 7-24
Books, New 34- 8-60
Books, New 34- 9-44
Bowling in Junior High School 34- 3-13
Rex Aurand
Bunn, John W., Why the Underhand Free Throw? ...34- 3 12
Burger, Bud, Fast Break Drills 34- 2-20

C

Canham, Don, Trends in the High Jump 34- 6- 6
Canham, Don, Trends in the High Jump 34- 7- 8
Carta, Tris M., Selecting the Athlete's Uniform 34-10-14
Cartier, Warren L., Basketball Holder 34- 8-45
Clark, Don, Build Your Own Standards 34- 7-18
Coaching School Directory 34- 8-36
Coaching School Directory 34- 9-34
Coaching School Directory 34-10-20
Cole, Richard K., The Athletic Trainer in Secondary Schools 34- 7-22
Cole, Richard K., The Athletic Trainer in Secondary Schools 34- 8-15
Cross-Country Can Be a Spectator Sport 34-10-19
Carl F. Fischer

D

Debely, Joe, They Called It Short Punt 34- 1-38
Doherty, J. Kenneth, Selection and Training of High Hurdlers 34- 5-13

Dubick, Harry, Fundamentals of Lacrosse 34- 5- 7
Dunning, Bob, Turf Grass For the Southwest 34- 9-30
Dunning, Bob, Turf Grass For the Southwest 34-10-26

E

Easton, M. E., Santee's Stride 34- 6-10
Editorials
A.B.C. Month 34- 2-16
Annual Attack on Football 34- 2-16
A Softened Outlook 34- 9-55
Athletic Competition for Children? 34- 5-18
Countering the Softened Outlook 34-10-43
Filling a Void 34-10-16
Important Notice 34- 9-55
Improving Football 34- 1-79
Meeting the Challenge 34- 6-61
School Athletics 34- 8-16
Talking Sense 34- 7-67
That More May Play 34- 4-47
The Changing Sport Scene 34- 3-18
Eilbracht, Lee P., Play Situations 34- 7-12
England, Forrest W., The T Quarterback 34-10- 4
Epler, Stephen, The Growth of Interscholastic Sports 34- 8-34

F

Facilities and Equipment: Basketball Holder 34- 8-45
Warren L. Cartier
Facilities and Equipment: Batting Tees 34- 8-44
Louis Jorndt
Facilities and Equipment: Broad Jump Board, Laminated 34- 8-44
Lyle Bennett
Facilities and Equipment: Build Your Own Standards 34- 7-18
Don Clark
Facilities and Equipment: Gymnasium, A Modern Model 34- 9-28
J. Ray French
Facilities and Equipment: Magnetic Demonstration Board, Combination 34- 5-11
Fred G. Harwick
Facilities and Equipment: Swimming Record Board . 34- 8-45
Charles Wild
Fein, Lester S., Everyone Can Play Volleyball 34- 6-12
Fesler, Wesley E., Defensive End Play 34- 2- 9
Film, New 34- 5-40
Film, New 34- 9-40
Fischer, Carl F., Cross-Country Can Be a Spectator Sport 34-10-19
Foley, John C., Teaching the Man-for-Man 34- 4-28
Football: Cockeyed T Passing Attack, The 34- 7-10
Dr. Don Veller
Football: Cockeyed T, The 34- 1-32
Dr. Don Veller
Football: Defense Against the T, The 5-3 ..... 34- 2-25
Dallas Ward
Football: Defensive Center Play 34- 3-16
Arch Steel
Football: Elbow Your Way in Football 34- 9-26
Harold Swanson
Football: End Play, Defensive 34- 2- 9
Wesley E. Fesler
Football: Five-Man 34- 1-42
James J. Rafferty
Football: Football Scouting 34- 1- 6
E. H. Lacy, Jr.
Football: High School Offense 34- 7-26
Football: High School Offense 34- 8-18
Football: Line Coaching, Morale—Factor in 34- 2-32
Bob Troppmann
Football: Meeting Various Defenses 34- 1-28
Erwin Ginsburg
Football: Offense, Planning the 34- 8- 6
Dennis Gildea
Football: Offense, Planning the 34- 9-15
Dennis Gildea
Football: Psychological Football 34- 2- 6
Charles Webb
Football: Punters Are Made 34-10-15
John White
Football: Short Punt, They Called It 34- 1-38
Joe Debely
Football: Single Wing, Another, Headache 34- 3-46
Dr. Don Veller
Football: Single Wing, A Tested Defense Against the .34- 2-18
Dr. Don Veller
Football: Single Wing Running Attack 34- 1- 9
George Ashworth
Football: Six-Man, Is Your Team's Defensive Slip Showing? 34-10-24
Andrew W. Grieve
Football: Six-Man Spreads, Defense Against 34- 8-10
Andrew W. Grieve
Football: Sound Signal System, Ways of Developing a 34- 1-44
Norman D. Pollom
Football: Split T Defense, A Workable 34- 8-12
Dr. Don Veller
Football: Split T Line Play, Techniques of 34- 1-18
Warren K. Giese
Football: Split T Line Play, Techniques of 34- 2-14
Warren K. Giese
Football: T Quarterback, The 34-10- 4
Forrest W. England
Football: Unbalanced Line Split T 34- 6-20
James A. Perry
Football: Unbalanced Line Split T Plays 34- 9-10
James A. Perry
Football: Weak-Side Pass 34- 4-24
Paul Giel and Edwin Spencer
Football: X Y Z Blocking 34- 2-22
Jay McWilliams
Francis, Clarence "Bevo", Shooting Illustrated 34- 3- 6
French, J. Ray, A Modern Model Gymnasium 34- 9-28

G

Giel, Paul, Weak-Side Pass 34- 4-24
Giese, Warren K., Techniques of Split T Line Play ...34- 1-18
Giese, Warren K., Techniques of Split T Line Play ...34- 2-14
Gildea, Dennis, Planning the Offense 34- 8- 6
Gildea, Dennis, Planning the Offense 34- 9-15
Ginsburg, Erwin, Meeting Various Defenses 34- 1-28
Golf For Every School 34- 9-22
Conrad H. Rehling
Grau, Fred V., Reduce Injuries With Good Turf 34- 8-28
Greer, Hugh, Drills for Better Fundamentals 34- 2-34
Green, Hugh, Penetrating the Zone With the 1-3-1 ..34- 3-26
Grieve, Andrew W., Defense Against Six-Man Spreads 34- 8-10
Grieve, Andrew W., Is You Team's Defensive Slip Showing? 34-10-24
Grieve, Andrew W., The Inside Weave 34- 3-17
Gymnastics: Singles Balancing, Advanced 34- 7-14
James A. Baley
Gymnastics: Singles Balancing, Elementary 34- 5-34
James A. Baley
Gymnastics: Singles Balancing, Intermediate 34- 6-16
James A. Baley

H

Harwick, Fred G., Combination Magnetic Demonstration Board 34- 5-11
Holzaepfel, Dick, Advanced Trampoline Stunts 34- 1-21
Holzaepfel, Dick, Advanced Trampoline Stunts 34- 2-26
Humphrey, Fred, Analysis of Team Efficiency 34- 3-42

I

Interscholastic Sports, The Growth of 34- 8-34
Stephen Epler
Items, New 34- 1-78
Items, New 34- 3-62
Items, New 34- 6-58
Items, New 34- 7-64
Items, New 34- 8-48

J

Jorndt, Louis, Batting Tees 34- 8-44

K

King, Eddie, Underhand Free Throw 34- 3-10

L

Lacrosse, Fundamentals of 34- 5- 7
Harry Dublick
Lacy, E. H., Jr., Football Scouting ..... 34- I- 6
Levitt, Bunny, Underhand Free Throw 34- 3-10
Loucks, Dr. Donald, The Varsity Tennis Ladder ... 34- 9- 9

M

McWilliams, Jay, X Y Z Blocking 34- 2-22
Miller, Kenneth D., The Ten-Flat Man 34- 6-22
Morland, Richard B., Free-Throws—
Frozen Assets or Redeemable Dividends? 34- 3- 9
Morris, Mortimer H., Zoned Basketball 34- 4-26
Mortensen, Jess, First 190 Foot Throw 34- 6- 8
Murphy, William, Tennis Analyzed 34- 9- 6

N

Nagle, Jack, Approved Shotgetters 34- 4-16

O

O'Connor, W. Harold, Is Your Track Team Ready? .. 34- 5-30
Oliver, Newton, Shooting Illustrated 34- 3- 6

P

Patrick, John, Analysis of Defensive Footwork 34- 4-20
Pegram, W. D., Position Shooting 34- 1-36
Perry, James A., Unbalanced Line Split T 34- 6-20
Perry, James A., Unbalanced Line Split T Plays ... 34- 9-10
Pfitsch, John A., Concentration in Shooting 34- 4-22
Pollom, Norman D., Ways of Developing a
Sound Signal System 34- 1-44
Potter, Marsh, Triple Post 34- 3-14
Psychology—Its Role in Physical Education 34- 3-34
Stanley E. Smith

R

Rafferty, James J., Five-Man Football 34- 1-42
Reeder, Col. Red, The Backs Go Tearing By
on What Kind of Turf? 34- 5-16
Rehling, Conrad H., Golf For Every School 34- 9-22
Ryan, Jack, Teaching Skills in Diving 34- 6-38
Ryan, Jack, Teach Them How to Turn 34- 5-22

S

Schlundt, Don, One Hand Free Throw 34- 3-11
Shimek, Melvin, Broad Jumping 34- 8- 8
Smilgoff, James, Pitching Control 34- 6-28
Smilgoff, James, 2 and 1 Baseball 34- 7-16
Smith, Stanley E., Psychology— Its Role in
Physical Education 34- 3-34
Soccer an Intercollegiate Sport 34-10-12
Bruce L. Bennett
Spencer, Edwin, Weak-Side Pass 34- 4-24
Sports Publicity, ABC's of 34- 3-32
Al Boeck, Jr.
Stackhouse, Chester R., Eating Habits of
World Olympic Athletes 34- 7-20
Steel, Arch, Defensive Center Play 34- 3-16
Stubblefield, Charles F., Infield and Outfield
Defense 34- 6-18
Stubblefield, Charles F., Make the Most of the
Games 34- 8-26
Stubblefield, Charles F., Offensive Baseball
in the High School 34- 7- 6
Swanson, Harold, Elbow Your Way in Football 34- 9-26
Swimming: Diving, Teaching Skills in 34- 6-38
Jack Ryan
Swimming: Teach Them How To Turn 34- 5-22
Jack Ryan

T

Team Stack Up Scholastically? How Does Your 34- 1-26
Edwin L. Voll, Jr.
Tennis: Tennis Analyzed 34- 9- 6
William Murphy
Tennis: Tennis Ladder, The Varsity 34- 9- 9
Dr. Donald Loucks
Tennis: Tennis, Successful Promotion of 34- 8-14
T. H. Vaughan
Track and Field: Broad Jumping 34- 8- 8
Melvin Shimek
Track and Field: High Hurdlers, Selection and
Training of 34- 5-13
J. Kenneth Doherty
Track and Field: High Jump, Trends in the 34- 6- 6
Don Canham
Track and Field: High Jump, Trends in the 34- 7- 8
Don Canham
Track and Field: Is Your Track Team Ready? 34- 5-30
W. Harold O'Connor
Track and Field: National Honor Roll 34- 5-24
Track and Field: 190 Foot Throw, First 34- 6- 8
Jess Mortensen
Track and Field: Santee's Stride 34- 6-10
M. E. Easton
Track and Field: Ten-Flat Man, The 34- 6-22
Kenneth D. Miller
Track in the High Schools 34- 5-26
Track Meet, National High School 34- 5-28
Training: Athletic Trainer in Secondary Schools,
The 34- 7-22
Richard K. Cole
Training: Athletic Trainer in Secondary Schools,
The 34- 8-15
Richard K. Cole
Training: Eating Habits of World Olympic Athletes .. 34- 7-20
Chester R. Stackhouse
Trampoline Stunts, Advanced 34- 1-21
Dick Holzaepfel
Trampoline Stunts, Advanced 34- 2-26
Dick Holzaepfel
Troppmann, Bob, Morale—Factor in Line Coaching .. 34- 2-32
Turf Grass For the Southwest 34- 9-30
Bob Dunning
Turf Grass For the Southwest 34-10-26
Bob Dunning
Turf, Reduce Injuries With Good 34- 8-28
Fred V. Grau
Turf, The Backs Go Tearing By on What Kind of? .. 34- 5-16
Col. Red Reeder

U

Uniform, Selecting the Athlete's 34-10-14
Tris M. Carta

V

Van Buren, Gordon, A Simple Man-for-Man
Scissors 34- 3-20
Vaughan, T. H., Successful Promotion of Tennis ... 34- 8-14
Veller, Dr. Don, Another Single Wing Headache 34- 3-46
Veller, Dr. Don, A Tested Defense Against the
Single Wing 34- 2-18
Veller, Dr. Don, A Workable Split T Defense 34- 8-12
Veller, Dr. Don, The Cockeyed T 34- 1-32
Veller, Dr. Don, The Cockeyed T Passing Attack 34- 7-10
Voll, Edwin L., Jr., How Does Your Team Stack
Up Scholastically? 34- 1-26
Volleyball, Everyone Can Play 34- 6-12
Lester S. Fein

W

Walters, Bill, The Pressing Defense 34- 3-28
Ward, Dallas, The 5-3 Defense Against the T 34- 2-25
Ward, Stan, Drills for Better Fundamentals 34- 2-34
Ward, Stan, Penetrating the Zone With the 1-3-1 .. 34- 3-26
Watson, Bob C., Composite Offense Against a
Man-for-Man Defense 34- 3-22
Watson, Bob C., The Plus-Minus Chart 34- 5-32
Webb, Charles, Psychological Football 34- 2- 6
Wells, Cliff, One-Hand Free Throw 34- 3-11
White, John, Punters Are Made 34-10-15
Wild, Charles, Swimming Record Board 34- 8-45
Wisher, P. R., A Defense Against the Tall Pivot 34- 4-13

Filling a Void

(Continued from page 16)

can be found. It requires speed and endurance, coupled with agility, and is, of course, a team game with emphasis upon co-operation.

Mr. Bennett, in discussing soccer as an intercollegiate sport elsewhere in this issue, stressed the fact that it is a fall sport in addition to football. We feel that it could well become a spring sport in the states where high school spring football practice is prohibited.

Two years ago in answering our questionnaire on spring football one coach wrote: "The popular fallacy that spring football interferes with track has not been true in our school. Our track squad has neither grown nor become stronger because of the abolishment of spring football. In the past many boys remained out for track when spring football stopped. Now we have lost touch with the boys during the spring."

Maybe soccer is not the answer, but we feel an answer must be found, and we feel that soccer certainly merits consideration and even actual trial in some conferences.

Countering the Softened Outlook

A GREAT deal has been written about the failure of physical education, and the high number of physical rejects in the draft is used as an illustration.

Recently the University of Illinois released some rather alarming statistics. The report indicated that 21 per cent of the students were in scholastic difficulties during the first semester. At the end of the semester 850 students were dismissed and 1800 were placed on probation for the second semester.

We do not feel that the academic teacher or the academic program, the physical education teacher or the physical education program are at fault. Rather, we feel the fault lies with the softened outlook which has permeated our thinking.

Today's theory of the welfare state with guaranteed cradle to the grave security has caused the change in our thinking. No longer is it felt essential for an individual to be strong physically and mentally in order to survive. In other words, the necessity for proficiency, both intellectual and physical, is no longer present.

Athletics can help counter this thinking by continuing to teach the lesson that there is no easy road to success. The team that blocks and tackles the hardest wins.

COACHES READY REFERENCE SERVICE COUPON

JUNE, 1954

As a service to our readers and for their convenience we list here the advertisers appearing in this issue. Many of the concerns offer free booklets and coaching aids. Simply cut along the perforated rule and mail to:

Service Department, ATHLETIC JOURNAL
6856 Glenwood, Chicago 26, Ill.

COMPLETE LINE

MacGregor Co., The, 27, ☐ Free catalog
Rawlings Sporting Goods Co., Cover 2, ☐ Catalog

SHOES

Riddell, Inc., John T., 17, ☐ Free booklet, "The Story of Quality Shoe Construction"

CLOTHING & LETTERING

Hand Knit Hosiery Co., 3, ☐ Information "Wigwam" socks
Kahn Co., Inc., Arthur, 28, ☐ Information "Kahnfast" fabrics
Sand Knitting Mills Corp., 39, ☐ Free 1954 football clothing catalog

TRAINERS SUPPLIES

Cramers, 35, ☐ Add name to "The First Aider" list
Seamless Rubber Co., Cover 3, See listing under "Books"
Seron Mfg. Co., 33, ☐ Information "Glass Gard" eyeglass holder
Williams-Huff Co., 30, 31, ☐ Information "Featherbite Protective Mouthpiece"

GYMNASIUM & FIELD EQUIPMENT

American Playground Device Co., 34, ☐ Free literature
Fair Play Mfg. Co., 34, ☐ Free booklet "What's the Score"
Fenner-Hamilton Co., 34, ☐ Free literature
Griswold, Larry, 33, ☐ Descriptive circular. See listing under "Books"
Hussey Mfg. Co., 36, ☐ Free catalogs
Leavitt Bleacher Co., 28, ☐ Complete information
Naden & Sons, 39, ☐ Football Catalog; ☐ Basketball Catalog; ☐ Baseball Catalog
Nissen Trampoline Co., 29, ☐ Free literature
Nurre Companies, Inc., The, 38, ☐ Free illustrated booklet

LIGHTING EQUIPMENT

Crouse-Hinds Co., 18, ☐ Free bulletins

SWIMMING SUPPLIES

Ocean Pool Supply Co., 33, ☐ Free catalog D

TOWELS

McArthur & Sons, George, 32, ☐ Information McArthur school towel plan

FLOOR FINISHES

Hillyard Chemical Co., 1, ☐ Free copy new revised gym layout and lining file folder

RECONDITIONERS

Ivory System, Cover 4, ☐ Add name to "Observer" list

RUBBER BALLS

Seamless Rubber Co., Cover 3, ☐ Catalog

TURF PRODUCTS

Scott & Sons Co., O. M., 31, ☐ Information
West Point Products Corp., 37, ☐ Information on the "Aerifier"

COACHING SCHOOLS

Adelphi College Coaching School, 32, ☐ Information
New York State Coaching School, 39, ☐ Information
Ocean City Basketball Clinic, 34, ☐ Information
Texas High School Coaches Assn. Coaching School, 32, ☐ Information
Upstate New York Basketball Coaching School, 37, ☐ Information
Virginia State College Coaching School, 37, ☐ Information

BOOKS

(Enclose money where required)

Athletic Enterprises, 37, ☐ Locker room slogans—25 for $1.00
Griswold, Larry, 33, ☐ "Trampoline Tumbling," $3.75
School Aid Co., 35, ☐ "T Formation from A to Z," $4.50
☐ "How to Scout Football," $4.50
☐ "Pigskin Tactics," $3.85
☐ "Revolutionary Football," $2.00
Seamless Rubber Co., Cover 3, ☐ "The Strapping of Athletes," Eddie O'Donnell, 50 cents

Coupon will not be honored unless position is stated.

NAME _____ POSITION _____

SCHOOL _____

STREET ADDRESS OF SCHOOL _____

CITY _____ ZONE _____ STATE _____

INDEX TO ADVERTISERS

Adelphi College Coaching Schol 32
American Playground Device Co. 34
Athletic Enterprises 37
Athletic Institute, The 22, 23

Cramers 35
Crouse-Hinds Co. 18

Fair Play Mfg. Co. 34
Fenner-Hamilton Co. 34

Griswold, Larry 33

Hand Knit Hosiery Co. 3
Hillyard Chemical Co. 1
Hussey Mfg. Co. 36

Ivory System ..... Cover 4

Kahn Co., Inc., Arthur 28

Leavitt Bleacher Co. 28

McArthur & Sons, George 32
MacGregor Co., The 27

Naden & Sons 39
New York State Coaching School 39
Nissen Trampoline Co. 29
Nurre Companies, Inc., The 38

Ocean City Basketball Clinic 34
Ocean Pool Supply Co. 33

Rawlings Sporting Goods Co. ..... Cover 2
Riddell, Inc., John T. 17

Sand Knitting Mills Corp. 39
School Aid Co. 35
Scott & Sons Co., O. M. 31
Seamless Rubber Co. ..... Cover 3
Seron Mfg. Co. 33

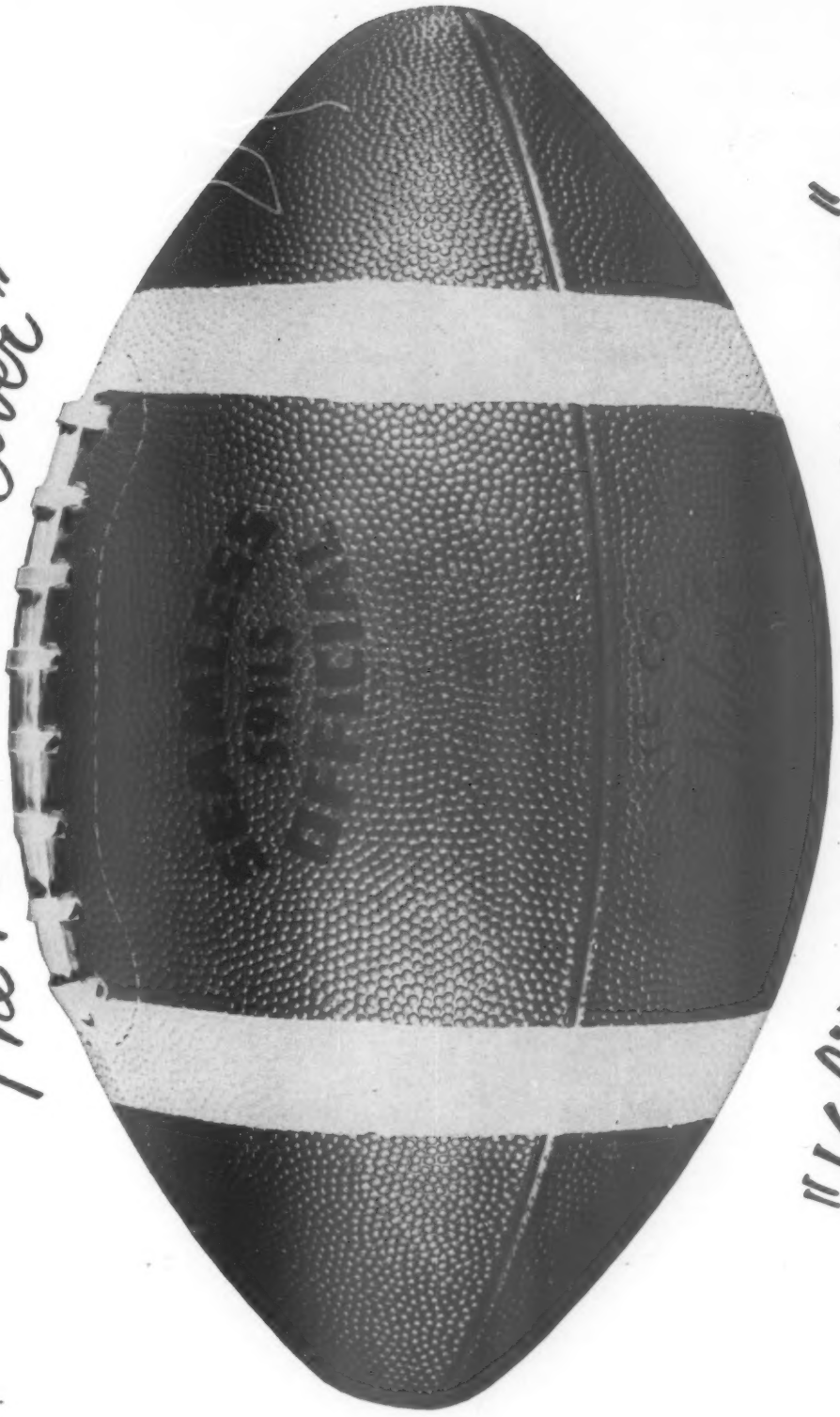
Texas High School Coaches Assn. Coaching School 32

Upstate New York Basketball Coaching School 37

Virginia State College Coaching School 37

West Point Products Corp. 37
Williams-Huff (..... 30, 31

"The Feel is in the Cover"



"Kolite® Makes the Difference"

Recognized NCAA and NFSHSAA

THE SEAMLESS RUBBER COMPANY

NEW HAVEN 3, CONN., U.S.A.

Pioneers

We of the IVORY SYSTEM were and still are Pioneers in the field of Athletic Equipment Reconditioning. We have never attempted to make new athletic equipment, because reconditioning, not manufacturing, is our business.

Our original idea was to assist the schools and colleges of America in the maintenance of athletic equipment which they purchased . . . regardless of its source.

We have never deviated from this idea, other than to have our own salesmen offer for sale items such as VITA-SAN, DAWHIDE, IVORY SYSTEM PENETRATING LEATHER OIL, and other outstanding "upkeep items" that we felt would help bring the maximum return for athletic equipment investments.

In A Class By Itself

The IVORY SYSTEM, Inc.

Reconditioners of Athletic Equipment

PEABODY, MASS.